Recenzovaný sborník příspěvků
mezinárodní vědecké konference

MMK 2017

MEZINÁRODNÍ MASARYKOVA KONFERENCE PRO DOKTORANDY A MLADÉ VĚDECKÉ PRACOVNÍKY

ročník VIII.

18. – 20. prosince 2017

Hradec Králové, Česká republika

Záštita konference | Conference Patronage

Ministry of Industry and Trade of the Czech Republic
(no. 30378/12/01300/01000)

Ministry of Economy of the Slovak republic
(no. 1159/2012-1000)

Ministerstwo Gospodarski, Polska
(no. SM-II-0780-654/2/12)



Introductory Word TGM quoted with the consent of The Office of the President of the Czech Republic
Mgr. Petr Fučík

The National Museum in Prague detail quoted with the consent of
Mgr. Magdaléna Kroupová

Odborné sekce konference | Conference Sessions

Podnikové řízení | Business Management
Marketing a obchod | Marketing
Ekonomie a podniková ekonomika | Economy and Business Economics
Veřejná správa | Public service
Finance a účetnictví | Financing and Accounting
Psychologie, sociologie a pedagogika | Psychology, Sociology and Pedagogy
Filosofie, politologie a dějiny | Philosophy, Politics and History
Průmyslové inženýrství | Industrial Engineering
Inovace, technologie | Innovation, Technology
Informatika a informační technologie | Informatics and Information Technology
Přírodní vědy | Natural Sciences
Stavebnictví, strojírenství | Engineering, Building Industry

Editor, úprava, realizace | Edit, Published by

© MAGNANIMITAS, Hradec Králové, Česká republika, 2017

Magnanimitas, Hradec Králové, 2017

ISBN 978-80-87952-22-1

Upozornění | Warning

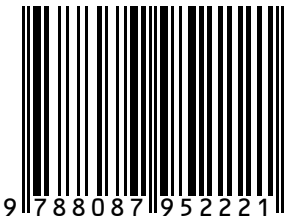
Všechna práva vyhrazena. Rozmnožování a šíření této publikace jakýmkoliv způsobem bez výslovného písemného svolení vydavatele je zakázané. | All rights reserved. Unauthorized duplication is a violation of applicable laws.

Certifikovaná vědecká konference | Certificate Conference No.: 2259661638

MAGNANIMITAS Assn. International and ECONFERENCE
is a signatory of Berlin declaration on Open Access
to knowledge in the sciences and humanities.
(http://openaccess.mpg.de/3883/Signatories/)

for SCIEMCEE (https://oa2020.org/mission/#other)

OPEN ACCESS



Reviewed proceedings of the
International Scientific Conference on

MMK 2017

INTERNATIONAL MASARYK CONFERENCE FOR PH.D. STUDENTS AND YOUNG RESEARCHERS

volume VIII.

December 18 - 20, 2017

Hradec Králové, The Czech Republic

Úvodní slovo | Introductory word

Vážení kolegové,

dostává se vám do rukou recenzovaný sborník z Mezinárodní Masarykovy konference pro doktorandy a mladé vědecké pracovníky 2017, jejíž VIII. ročník se konal ve dnech 18.-20. prosince 2017. Konference se účastnilo více než 150 účastníků z České a Slovenské republiky, Polska, Maďarska, Německa, Litvy, Slovinska a dalších evropských států, mezi nimiž byli jak PhD studenti, tak i ostatní zástupci akademických obcí domácích i zahraničních univerzit. Záměrem Masarykovy konference bylo poskytnout prostor pro otevřenou odbornou diskusi napříč 12 programovými sekcemi, jejichž skladba měla umožnit účast co nejširšímu okruhu studentů doktorských studijních programů. Naše několikaletá snaha o dosažení tohoto záměru se naplnila v tomto ročníku, kdy lze hrdě Mezinárodní Masarykovu konferenci zařadit na vrchol největších doktorandských konferencí ve střední a východní Evropě! Předkládaný sborník obsahuje několik set vybraných vědeckých textů rozčleněných dle odborných sekcí, které kopírují obsahovou strukturu mezinárodní konference. Naším záměrem je Masarykovu konferenci přiblížit špičce mezi celoevropskými doktorandskými konferencemi a neomezovat se jen na regiony střední a východní Evropy. Od dalšího ročníku naše Mezinárodní Masarykova konference bude zcela nově napojena na platformu SCIEMCEE, která účastníkům poskytne nový konferenční komfort odpovídající potřebám informační společnosti 21. století. Budeme rádi, pokud nám zachováte přízeň i v nadcházejících ročnících.

S přáním osobních, vědeckých i profesních úspěchů

členové vědeckého výboru konference

Dear colleagues,

You are holding the reviewed proceedings from the seventh annual International Masaryk Conference for PhD Students and Young Researchers 2017, which was held on December 18-20, 2017. The conference was attended by more than 150 people from the Czech Republic and Slovakia, Poland, Hungary, Germany, Lithuania, Slovenia and other European countries, including PhD students as well as other representatives of the academic community from universities in both the Czech Republic and abroad. The aim of the Masaryk Conference was to provide a space for open professional discussion across 12 programme sections, designed to enable as broad a range of PhD students as possible to participate. Our several years of effort towards achieving this aim culminated this year, when the International Masaryk Conference can proudly claim to be the leader amongst the biggest PhD conferences in Central and Eastern Europe! The proceedings you are holding contains several hundred selected scientific texts divided up in specialised sections which replicate the way the content of the international conference is structured. Our aim is to make the Masaryk Conference one of the top Europe-wide PhD conferences and not to restrict it only to the regions of Central and Eastern Europe. What is completely new is that from next year our Masaryk Conference will be linked to the SCIEMCEE platform, which provides participants with a new level of conference comfort that meets the needs of the information society of the 21st century. We will be delighted if you continue to support us in the coming years.

Wishing you great personal, scientific and professional success

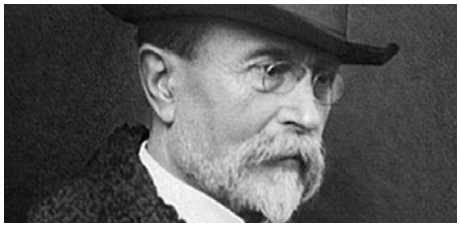
Members of the Conference Scientific Committee

Tomáš Garrigue Masaryk (1850-1937)

scientist, philosopher, educator, politician and journalist, the founder of the modern Czechoslovak state, President of Czechoslovakia

"Tomáš Garrigue Masaryk is a leading personality in European history. He wrote himself into history, in fact, as a man who fought for the truth, a humanist, a philosopher and primarly a democratic politican and the first president of the Czechoslovak Republic."

Museum T.G. Masaryk Lany



MEZINÁRODNÍ MASARYKOVA KONFERENCE
INTERNATIONAL MASARYK CONFERENCE

Teaching and scientific career

He was born in Hodonín. His parents sent him to a junior secondary school after a word in his favour from the local dean, who praised the boy's exceptional aptitude and talent. It was therefore decided that he would go into a teaching career after finishing school in Hustopeče. He went on to study at the German grammar school in Brno, after being awarded a scholarship due to his outstanding success as a student. However, a conflict arose with the grammar school management, due to Masaryk's refusal to attend compulsory school confessions, and so he was expelled. From November 1869 he studied at the Academic Grammar School. He devoted all his time to studying hard, particularly languages and philosophy. In 1872 he passed his school leaving examination and enrolled at the Philosophical Faculty in Vienna to study Philology. In 1876 he graduated from university and set off travelling (Italy, Germany). In Germany he spent one year at the university in Leipzig. His stay there not only enabled Masaryk to extend his education, but was especially where he first saw his future lifelong partner Charlotte Garrigue, daughter of a rich American businessman from New York, in June 1877. In August, before he left for home, they got engaged. After returning to Vienna, Masaryk hurried to secure them an independent existence. The most viable way of doing this seemed to be obtaining an associate professorship. In September 1878 he submitted his advanced doctoral thesis, on the topic of suicide. It met with considerable response when it was issued in book form (1881). Their first daughter, Alice, was born in May 1879, followed a year later by a son, Herbert, and another son, Jan, in 1886. It was mostly the desire to provide for his family financially that led Masaryk to take a post at Prague University. He arrived in Prague with his family in 1882, the year the university was split into two parts, Czech and German. His opinions and his relationship towards his students made him stand out and appear different; he amazed the conservative institute with his lectures on various topics that had previously been taboo (social problems, prostitution, etc.). The same was true of his wife, a fully emancipated American woman. Despite these differences and some clashes of opinion, however, he was accepted and respected by Czech society right from the very start. In 1883 began to edit "Athenaeum", an academic journal in which he published his own interpretation of Gebauer's essay proposing a new and precise form of authentication, entitled "Rukopisy zelenohorského a královédvorského" (*Zelenorske and Kralovedvorske Manuscripts*). This led to a conflict that gradually grew to become a nationwide affair, with patriotic sentiment and national politics facing off against scientific truth. This event turned Masaryk's interest to political life. In 1897 he

Quoted with the consent of The Office of the President of the Czech Republic

Mgr. Petr Fučík

was appointed Professor at Charles University. By the time the First World War broke out, Masaryk already had a respectable scientific, educational, cultural and political career. Before the end of 1914 he left for Italy and, heeding his friends' warnings, never returned to his homeland. He worked in Switzerland (1915) and later in the year moved to France. For the whole of the war he bore on his shoulders the greatest burden and responsibility for the future of the entire Czech and Slovak nation during the talks in England (1916), Russia (1918) and then in America. On December 21st 1918 Masaryk returned triumphant to Prague and a day later gave his first address to the National Assembly at the Castle. He began with the famous quote from Comenius's Kšaft (Bequest), which reads "*the government of your affairs once more turns to you, oh Czech people*".

Garanti konference, recenzenti | Conference Guarantors, Reviewers

Prof. dr hab. Jaroslav Lipowski - Univerzita Hradec Králové
Prof. JUDr. Anna Bandlerová, Ph.D. - Slovenská poľnohospodárska univerzita
Prof. PhDr. Vladimír Šefčík, CSc. - Univerzita Tomáše Bati ve Zlíně
Prof. Ing. Ľudmila Nagyová, PhD. - Slovenská poľnohospodárska univerzita v Nitre
Prof. Ing. Eva Kislingerová, CSc. - Vysoká škola ekonomická v Praze
Prof. dr.hab. Csaba Gy. Kiss, Drsc. - Eötvös Loránd University, Budapest
Prof. Dr. h. c. Ing. František Trebuňa CSc. - Technická univerzita v Košiciach
Prof. PaedDr. Jozef Liba, PhD. - Prešovská univerzita v Prešove
Prof. PhDr. Polouček Stanislav, CSc. - Vysoká škola báňská - Technická univerzita Ostrava
Prof. Ing. Viktória Bobáková, CSc. - Univerzita Pavla Jozefa Šafárika v Košiciach
Prof. RNDr. Tibor Kmeť, CSc. - Univerzita J. Selyeho
Prof. zw. dr hab. Czesław Sułkowski - Zachodniopomorski Uniwersytet Technologiczny w Szczecinie
Prof. zw. dr hab. Ewa Okoń-Horodyńska - Uniwersytet Jagielloński w Krakowie
Prof. dr hab. Elżbieta Skrzypek - Uniwersytet Marii Curie-Skłodowskiej w Lublinie
Prof. dr hab. Magdalena Krystyna Wyrwicka - Politechnika Poznańska
Prof. zw. dr hab. Małgorzata Bednarczyk - Uniwersytet Jagielloński w Krakowie
Prof. US dr hab. Barbara Kryk - Uniwersytet Szczeciński
Assoc. Prof. Egle Stonkute, PhD. - Vytautas Magnus University, Lithuania
Assoc. Prof. Doc. Edita Hornáčková Klapicová, PhD. - SS Cyril and Methodius University
Doc. PaedDr. Daniela Valachová, PhD. - Univerzita Mateja Bela
Doc. Ing. Ivana Rábová, Ph.D. - Mendelova univerzita v Brně
Doc. PhDr. Ľubica Derňarová, PhD., MPH - prodekanka pre VaVČ, Prešovská univerzita
Dr hab. prof UZ Andrzej Małkiewicz - University of Zielona Góra
Doc. PhDr. Petr Kaleta, Ph.D. - Univerzita Karlova v Praze
PhDr. Martin Smutek, Ph.D. - Univerzita Hradec Králové
Dr hab. Bożena Kołosowska, prof. UMK - Uniwersytet Mikołaja Kopernika w Toruniu
Dr hab. Piotr Cichoracki - University of Wroclaw
Dr.h.c. prof. Ing. Miroslav Žák, DrSc. - Akadémia ozbrojených síl
Doc. István Csillag - Óbuda University, Budapest
Doc. RNDr. Daniela Velichová, CSc. mim.prof. - Slovenská technická univerzita v Bratislave
Doc. Sergej Vojtovič, DrSc. - Trenčianska univerzita
Doc. István H. Tóth, CSc. - Balassi Bálint Institute for Hungarian Studies, Budapest
Doc. PhDr. Eva Mydlíková, PhD. - Univerzita Komenského
Doc. István Siklaki, PhD. - Eötvös Loránd University, Budapest
Doc. Ing. et Ing. Jana Malatová, CSc. - Univerzita Pardubice
Doc. Orsolya Nádor, PhD. - Károli Gáspár University of the Reformed Church in Hungary, Budapest
Doc. PhDr. Andrej Rajský, PhD. - Trnavská univerzita v Trnave
Doc. PhDr. Milota Zelinová, CSc. - Univerzita Komenského v Bratislave
Doc. Mgr. Ing. Ladislav Mura, Ph.D. - Paneurópska vysoká škola
Doc. Dr. Peter Caban, PhD. - Katolícka univerzita v Ružomberku
Doc. PhDr. Ľuba Pavelová, PhD. - Comenius university in Bratislava
Dr inż. Aleksandra Zygmunt – Politechnika Opolska

The Conference is Supported by National Museum in Prague

The National museum is a research institution, which is engaged in basic research, applied research and experimental development, whose results are made public by way of expositions, exhibitions, lecturing and pedagogical work, publication work in all the spheres of its concern including museology and collection protection.



NÁRODNÍ MUZEUM

Quoted with the consent of
The National Museum in Prague

Mgr. Magdaléna Kroupová

Research institution

The National Museum is one of the oldest scientific institutions in the Czech Republic, whose tradition reaches back to such personalities of Czech science as Josef Palacký, Jan Krejčí or Karel B. Presl. It is also a publisher of the oldest Czech scientific journal (The National Museum Journal), which is issued to this day. This tradition is not at all an empty legacy.

Tens of scientists and experts of the National Museum successfully work on two extensive research programmes and a great many projects backed by the Ministry of Culture of the Czech Republic, which annually result in numerous results. They also work on scientific tasks financed by the Czech Science Foundation as well as projects on a European footing. According to established criteria the National Museum awards internal grants aimed especially at junior programmes.

Apart from the above mentioned National Museum Journal, which - with regard to the multidisciplinary profile of the institute – is published in two specialised forms focused on the humanities and natural science, the National museum issues 10 more specialised scientific periodicals as well as the monographic series Editio Monographica Musei Nationalis Pragae as a basic resourse edition and the mostly material archeological edition Fontes Archeologici Pragenses.

Vyjádření | Disclaimer

Příspěvky obsažené ve sborníku byly recenzovány.

Texty vyjadřují názory a stanoviska nezávislých autorů.

All papers have been reviewed.

Papers published in this conference proceedings express the viewpoints of their independent authors.

Obsah | Table of Contents

PODNIKOVÉ ŘÍZENÍ | BUSINESS MANAGEMENT

EXAMINATION OF THE COMPANY VALUATION PERTAINING TO MANUFACTURING SECTOR USING THE SELECTED METHOD 17
Elena Drabiková

ŠTRUKTÚRA A VÝVOJ VODCOVSTVA V SLOVENSKÝCH STARTUPOCH 25
Ivana Ljudvigová

KONTROLA AKO FUNKCIA MANAŽMENTU A JEJ ZMENY VPLYVOM KRÍZY 35
Nadežda Jankelová, Martina Beňová, Zuzana Skorková

THE IMPACT OF DIGITALIZATION ON THE SUCCESS OF INTERNATIONALIZATION REFERRED TO SMALL AND MEDIUM SIZED ENTERPRISES 45
Ann-Kathrin Teltz

MANAGEMENT SYSTEMS AND THEIR SIGNIFICANCE FOR EUROPEAN STANDARDIZATION 52
Marta Karkalíková

DETERMINANTS AND NEGATIVE PRACTICES OF BANKS AND FINANCIAL INSTITUTIONS IN TERMS OF CSR ACTIVITY 59
Katarzyna Szopik-Depczyńska

CSR IN BANKS AND FINANCIAL INSTITUTIONS IN THE FACE OF GLOBALIZATION PROCESSES 66
Katarzyna Szopik-Depczyńska

LEADERSHIP STYLE AND CORPORATE MANAGEMENT 75
Nurgul Ryskulova

CORPORATE CULTURE AS AN IMPORTANT FACTOR IN THE IMPLEMENTATION OF KNOWLEDGE MANAGEMENT 83
Jaroslava Bučková

INTERVIEWS WITH THE DRIVERS OF THE SELECTED LOGISTICS COMPANY IN RELATION TO CSR 92
Simona Činčalová, Václav Cempírek

OPTIMIZING STRATEGIC DECISION MAKING BY DIGITALIZATION – AN LABORATORY EXPERIMENT 98
Steffen Hoßfeld

ROLE VLASTNÍKA FIRMY PŘI UTVÁŘENÍ A ROZVOJI ORGANIZAČNÍ KULTURY 108
Darina Vážanská

OKRUŽNÍ DOPRAVNÍ PROBLÉM POHLEDEM STATISTIKY 112
Josef Košťálek

VPLYV EXTERNÝCH FAKTOROV NA POČET PRACOVNÝCH MIEST – SLOVENSKÁ REPUBLIKA 119
Marcela Galovská

VELIKOST PODNIKU A ENVIRONMENTÁLNÍ REPORTING – DŮKAZ Z ČESKÉ REPUBLIKY 126
Lenka Bílková

VYUŽITÍ OTEVŘENÝCH DAT PRO ÚČELY STRATEGICKÉHO ŘÍZENÍ START-UP PROJEKTŮ 136
Jan Boubín

NATIONAL MANAGEMENT STYLE: RESEARCH EVIDENCE FROM POLAND 145
Urszula Bąkowska-Morawska, Mieczysław Morawski

MARKETING A OBCHOD | MARKETING

THE FARM FOOD MARKET IN THE OPINION OF SLOVAK FARMERS - PRELIMINARY RESEARCH 153
Malgorzata A. Jarossová

TESTING CUSTOMER EQUITY MATRIX ON DISTRIBUTION CHANNEL MIX 160
Dominikus Stadler

ADVERTISING IN THE 21ST CENTURY - CHANGES IN THE FINANCIAL SECTOR 166
Miriam Mattová

THEORETICAL LITERATURE REVIEW ON SALESPEOPLE CUSTOMER-ORIENTED SELLING BEHAVIOR 171
Alfred Konrad

COLOURS AND EMOTIONS IN TV ADVERTISING BY RETAIL CHAINS 175
Klaudia Žarnayová, Daria Gunina

DEVELOPMENT OF ORGANIZATIONAL CULTURE MODELS IN EUROPEAN COMPANIES 184
Lukáš Mazánek, Michaela Vitulová, Zdenka Konečná, Lukáš Vraniak, Pavel Juřica

REFERENCES OF SLOVAK CONSUMERS ON EATING EDIBLE INSECTS - PRELIMINARY STUDY 192
Malgorzata A. Jarossová

VPLYV MARKETINGOVEJ KOMUNIKÁCIE A MODERNÝCH MÉDIÍ NA SPOTREBITEĽSKÉ SPRÁVANIE GENERÁCIE Y 199
Petra Grešková

KOMUNIKÁCIA ZNAČKY V ONLINE PROSTREDÍ 208
Vladimíra Jurišová

VYUŽITIE KONKRÉTNYCH PRVKOV ONLINE MARKETINGU V MALÝCH A STREDNÝCH PODNIKOCH 215
Adam Bartoš, Monika Jančovičová

THE IMPACT OF INTERNET MARKETING ON CUSTOMERS 225
Zuzana Šusterová, Daniela Čekanová, Peter Hanák, Ján Kolesár, Peter Koščák, Dorota Liptáková

EKONOMIE A PODNIKOVÁ EKONOMIKA | ECONOMY AND BUSINESS ECONOMICS

COMPARATIVE ANALYSIS OF SELECTED DETERMINANTS OF INNOVATION IN EU COUNTRIES 229
Katarzyna Brożek

EMPIRICAL METHODS IN INTERNATIONAL TRADE USING FOR EVALUATION IN LIVE-STOCK INDUSTRY, CASE OF SPECIFIC CHOSEN COMMODITY 236
Michal Beňo

EMISSION ALLOWANCES, A BASIC ECONOMIC TOOL FOR AIR PROTECTION 247
LadislavRozenský, Miroslav Hájek, Jan Lípa, Petr Hukal, Francisco Dupas, Fernanda Luz

PROCESY EX-ANTE POSUZOVÁNÍ DOPADŮ LEGISLATIVY V EU 258
Šimon Buryan

INOVACE V PRAXI CHEMICKÉHO PRŮMYSLU V EU 267
Šimon Buryan

THE EURO AREA AND A FISCAL UNION IN THE CONTEXT OF IMPLICIT ASSUMPTIONS: WOULD IT SOLVE THE PROBLEMS OF THE SYSTEM? 275
Milan Bednář

INNOVATION STRATEGIES USED IN ECONOMIC ACTIVITY 283
Katarzyna Brożek

SUSTAINABLE DEVELOPMENT AS PRIORITY FOR BUSINESS 292
Natália Tarišková, Zuzana Skorková

EKONOMIKA STARTUPOV 303
Natália Tarišková, Richard Bednár

POLICY MIX IN THE CONTEXT OF THE COMPETITIVENESS OF THE POLISH ECONOMY 324
Lena Grzesiak, Joanna Stawska

THE LAFFER CURVE AND TRUMP TAX REFORM TO THE U.S. ECONOMY 336
Yen-Chih Lee

EKONOMICKÉ ASPEKTY ZÁKONA č. 95/2017 Z.z. 346
Natália Kováčová

PRAWNE MECHANIZMY PRZECIWDZIAŁANIA STOSOWANIU SAMOZATRUDNIENIA W WARUNKACH CHARAKTERYSTYCZNYCH DLA STOSUNKU PRACY 355
Tomasz Duraj

TYPE OF COMPETITION ON THE MARKET OF GENERAL AVIATION AIRPLANES 365
Dorota Liptakova, Alica Tobisova, Slavomir Kis, Edina Jencova, Zuzana Susterova, Daniela Cekanova

VEŘEJNÁ SPRÁVA | PUBLIC SERVICE

PUBLIC DIPLOMACY AND NATION BRANDS 373
Andrej Kona

COMPARISON OF HEALTH CARE FINANCING FOCUSED ON OBSTETRICS 379
Andrea Masařová, Marcela Basovníková

THE ISSUE OF UNEMPLOYMENT IN THE CONTEXT OF SOCIAL COUNSELLING AND PSYCHOLOGICAL COUNSELLING OF THE PRESENT 389
Mominka Šovčíková

BLOKOVANIE ZASADNUTIA OBECNÉHO ZASTUPITEĽSTVA 395
Rastislav Munk

AUTOMATIZOVANÉ INFORMAČNÉ SYSTÉMY PRE EFEKTÍVNY E-GOVERNMENT 400
Soňa Ralbovská Sopúchová

VŠEOBECNE O ZDRAVOTNEJ DOKUMENTÁCII 406
Peter Koromház

KARIÉROVÉ PORADENSTVO POSKYTOVANÉ NA ZÁKLADNÝCH ŠKOLÁCH A V CENTRÁCH PEDAGOGICKO-PSYCHOLOGICKÉHO PORADENSTVA A PREVENCIE NA SLOVENSKU 414
Alena Koláriková

HIERARCHIA PRÁVNEHO PORIADKU 423
Veronika Miková

FINANCE A ÚČETNICTVÍ | FINANCING AND ACCOUNTING

PROBLEMATIKA VYKAZOVÁNÍ ZISKU A CAPEX 429
Šárka Findová, Jan Lhota

EXISTUJÍ ROZDÍLY NA ÚROVNI TRANSPARENTNOSTI HOSPODAŘENÍ ČESKÝCH NADACÍ? 437
Marek Jošt

SIX IMPORTANT FACTORS IN BREAK-EVEN ANALYSIS TOOL (BEAT) FOR ANALYZING PROFIT AND LOSS OF THE STARTUP BUSINESS 447
Minh Nguyen

CHALLENGES OF CONTROLLERS IN POLISH COMPANIES 457
Marta Kawczyńska

FRAKTÁLNÍ ANALÝZA MĚNOVÉHO PÁRU EUR/CZK 467
Vojtěch Sadil

SOUČASNÁ REALITA FINANČNÍCH TRHŮ Z HLEDISKA STRATEGIÍ FINANČNÍHO MANAGEMENTU 474
Tomáš Jeřábek, Zdeněk Málek, Vladimír Šefčík, Jana Štofilová

MOŽNÉ PŘÍSTUPY KE ZPĚTNÉMU TESTOVÁNÍ RIZIKOVÉ MÍRY EXPECTED SHORTFALL 481
Tomáš Jeřábek

EXEMPT OFFERINGS OF SECURITIES A CHANCE FOR SMEs TO COVER THEIR FUNDRAISING NEEDS 489
Erich Auer

THE POSSIBILITY OF SME'S TO GAIN EXTERNAL FUNDING IN COMPARISON ACCOUNTING PREPARED IN LINE WITH CZ GAAP OR IFRS 498
Miluše Korbelová

WPŁYW KOSZTÓW PRACY NA WYNIK FINANSOWY PRZEDSIEBIORSTWA 505
Patrycja Kokot-Stępień

VPLYV VYBRANÝCH UKAZOVATEĽOV NA DAŇOVÉ ÚNIKY 512
Kamil Ščerba, Michaela Novotná

PSYCHOLOGIE, SOCIOLOGIE A PEDAGOGIKA | PSYCHOLOGY, SOCIOLOGY AND PEDAGOGY

TEORETICKÁ PARADIGMA VÝTVARNÉHO NADANIA A TALENTU 521
Daniela Valachová

TEORETICKÁ REFLEXIA POJMU KYBERPRIESTOR, JEHO CHARAKTERISTIKY A ŠPECIFIKÁ 530
Vladimíra Hladíková

THE IMPORTANCE OF DRAWING IN PRESCHOOL PERIOD 537
Lucia Minichová

PROFESIJNÉ KOMPETENCIE AKO DETERMINANT PROFESIJNÉHO ROZVOJA UČITEĽA 545
Margita Feranská

ŽIDOVSKÁ TEMATIKA VE VÝUCE – NOVÉ NÁMĚTY 550
Markéta Zvolánková

IKT JAKO NÁSTROJ PRO PODPORU KOGNITIVNÍCH FUNKCÍ OSOB TRPÍCÍCH ALZHEIMEROVOU CHOROBOU 560
Michal Vostrý, Zdeněk Čeřovský

MODERNÍ TECHNOLOGIE JAKO PROSTŘEDEK V BOJI PROTI DEPRESIVITĚ U OSOB TRPÍCÍCH DEMENCÍ 565
Michal Vostrý

ROZVOJ A TESTOVÁNÍ JEMNÉ MOTORIKY U SENIORŮ S DIAGNÓZOU ALZHEIMEROVY CHOROBY 569
Michal Vostrý

EDUCATION OF PEOPLE WITH DEMENTIA AS PART OF COGNITIVE REHABILITATION USING MODERN MEDIA 575
Michal Vostrý

UČITEĽ, ŽIAK A ICH OSOBNE VNÍMANÁ ZDATNOSŤ 581
Denisa Gunišová, Nina Kozárová

ANALÝZA KOGNITÍVNEHO A UČEBNÝCH ŠTÝLOV ŽIAKOV, AKO DETERMINANTOV ROZVOJA VNÚTORNEJ POZNATKOVEJ ŠTRUKTÚRY 588
Denisa Gunišová, Nina Kozárová

KOMPARÁCIA SOCIÁLNEJ STAROSTLIVOSTI O DETI A MLÁDEŽ NA ÚZEMÍ SLOVENSKA PRED A PO SKONČENÍ DRUHEJ SVETOVEJ VOJNY 595
Ivana Šuhajdová

VÝCHOVNÝ ŠTÝL A APLIKÁCIA HODNOTENIA V RODINNEJ VÝCHOVE 600
Lujza Koldeová

HUDOBNO-EDUKAČNÝ PROGRAM V PODMIENKACH PRIMÁRNEHO VZDELÁVANIA 607
Martin Dzurilla, Vladimír Fedorko

PRVKY PROSOCIÁLNEHO SPRÁVANIA SA DETÍ A DOSPELÝCH PRI RIEŠENÍ KONFLIKTNÝCH SITUÁCIÍ 615
Štefánia Ferková

ŠPECIFICKÁ ORTOGRAFIA V DIELACH POMOCNÍK A KNIHA O CINTORÍNE 623
Hana Guzmická

CREOLIZATION, NATURALIZATION, EXOTICIZATION AND HYBRIDIZATION IN SLOVAK LITERATURE 628
Hana Guzmická

ODBORNÁ ZDRAVOTNÍCKA KOMUNIKÁCIA A ANATOMICKÁ NOMENKLATÚRA 632
Ľudmila Majerníková, Marta Vojteková

MOŽNOSTI A LIMITY DRUHOŠANCOVÉHO VZDĚLÁVÁNÍ ROMŮ 640
Silvia Lukáčová

MOŽNOSTI SÚČASNEJ ANTROPOLÓGIE 650
Henrieta Gergelová

SOCIAL NETWORKING SITES IN THE ENGLISH AS A FOREIGN LANGUAGE EDUCATION PROCESS: POTENTIAL BENEFITS AND DRAWBACKS FOR HIGHER EDUCATION SETTINGS 655
Juraj Datko

DIFFICULTIES IN SPEECH PRODUCTION OF LEARNERS OF ENGLISH AS A FOREIGN LANGUAGE 665
Klaudia Pauliková

STATUS SESTRY A JEHO VNÍMANIE NA SLOVENSKU 673
Jana Cuperová, Terézia Fertaľová, Lívia Hadašová, Iveta Ondriová

TYPOLOGIE WEBOVÝCH APLIKACÍ PRO VZDĚLÁVÁNÍ 679
Libor Klubal

PODPORA FRONTÁLNÍ VÝUKY POMOCÍ WEBOVÝCH NÁSTROJŮ 684
Libor Klubal

SELF-CONCEPT OF GIFTED AND REGULAR PUPILS 689
Dominika Hošová

EDUCATION AND KNOWLEDGE OF PATIENTS WITH TYPE 2 DIABETES MELLITUS 697
Ľudmila Majerníková, Ľubica Derňárová, Andrea Šuličová, Jana Cinová, Tatiana Šantová, Zuzana Novotná

SLOVOTVORBA AKO PROSTRIEDOK STIMULÁCIE KOGNITÍVNYCH FUNKCIÍ DIEŤAŤA 703
Eva Gogová

SELECTED PERSONALITY TRAITS AND SITUATIONMOTIVATIONAL FACTORS OF TOBACCO BEHAVIOR IN ADULT SMOKERS AND FORMER SMOKERS 713
Marta Vavrová, Karin Gálová

EFEKTIVNÍ TRENDY VE VÝUCE OCHRANY OBYVATELSTVA 722
Denisa Charlotte Ralbovská, Dana Rebeka Ralbovská

ZMYSEL ŽIVOTA A MOŽNOSTI SOCIÁLNEJ PRÁCE V ŠKOLSKOM PROSTREDÍ 729
Veronika Vasiľová, Soňa Lovašová

INTEGRÁCIA IMIGRANTOV V KONTEXTE HEURISTICKÉHO MODELU 739
Jana Plavnická, Dušan Šlosár

PÔSOBENIE STRESU NA ZDRAVIE JEDNOTLIVCA V KONTEXTE ONKOLOGICKEJ CHOROBY 746
Lenka Lukáčová, Eva Žiaková

MOŽNOSTI VYUŽITÍ SLEDOVÁNÍ OČNÍCH POHYBŮ V MANAGEMENTU LIDSKÝCH ZDROJŮ 753
Jonáš Erlebach, Ondřej Kasl

PRAWA OSÓB Z AUTYZMEM I ICH OCHRONA Z PERSPEKTYWY KRAJOWEJ I MIĘDZYNARODOWEJ 763
Renata Stefańska-Klar

VYHODNOTENIE URČITÝCH STRESOVÝCH INDIKÁTOROV A STRESOVEJ ODOLNOSTI A ICH POROVNANIE V ZÁVISLOSTI OD POHLAVIA A MIESTA BYDLISKA U RESPONDENTOV ZO SLOVENSKA 774
Andrea Baranovská, Karol Kováč

STRES A SYNDRÓM VYHORENIA V UČITEĽSKEJ PROFESII 785
Andrea Baranovská, Dominika Doktorová, Jana Hubinská

VZÁJOMNÉ KONEXIE MEDZI TVORIVOSŤOU, KLÍMOU PRACOVNÉHO PROSTREDIA A OSOBNOSTNÝMI CHARAKTERISTIKAMI PODĽA CATTELLA U PRACOVNÍKOV 796
Doktorová Dominika, Masár Michal

BENEFITS AND LIMITATIONS OF THE ALTERNATING CUSTODY 807
Lucia Bellová, Katarína Özger

FENOMÉN DOBROVOĽNÍCTVA V PREGRADUÁLNEJ PRÍPRAVE SOCIÁLNYCH PRACOVNÍKOV SERVICE LEARNING 812
Lucia Gregová

ARCHETYP UČITELE MĚŠŤANSKÉ ŠKOLY BAŤOVSKÉHO ZLÍNA 822
Tereza Slobodníková

SKUTECZNOŚĆ NEUROGRY JAKO METODY USPRAWNIANIA PROCESÓW POZNAWCZYCH: WPŁYW NA CODZIENNE FUNKCJONOWANIE 826
Agata Szekiełda

OBRAZ AUTONOMIE A SEBEREALIZACE ADOLESCENTŮ S MENTÁLNÍM POSTIŽENÍM V DĚTSKÝCH DOMOVECH 834
Marie Farková

INTERAKČNÝ PRÍKLON VS. INTERAKČNÝ ODKLON VO VYUČOVACO-UČEBNÝCH ČINNOSTIACH VÝUČBY 843
Peter Ostradický

SOCIAL TOURISM IN RELATION TO THE SENIORS 853
Katarína Sisiková, Anna Žilová

IDENTIFIKÁCIA VZŤAHOVEJ VÄZBY DIEŤAŤA V PRÁCI SOCIÁLNEHO PRACOVNÍKA V DETSKOM DOMOVE 860
Nikola Benecová

PORÓWNANIE OPINII NA TEMAT SZKOLNICTWA STUDENTÓW KIERUNKÓW PEDAGOGICZNYCH I STUDENTÓW INNYCH KIERUNKÓW 870
Bartosz Atroszko

MOTIVACE UČITELŮ V PROJEKTECH ŠKOLY 882
Lenka Vojáčková

HISTORICKÉ PROMĚNY PARADIGMATU HOSPODÁŘSKÉ LINGVISTIKY 890
Tomislav Potocký

PEOPLE WITH HEARING DISABILITIES IN THE TREATMENT AND THERAPY OF ADDICTION TO PSYCHOACTIVE SUBSTANCES 895
Marta Pięta

RIZIKOVÉ CHOVÁNÍ SE ZAMĚŘENÍ NA SEXTING 902
Tereza Kaláčková

MÍRA POROZUMĚNÍ TEXTU SOUVISÍ S ÚROVNÍ ČTENÁŘSKÝCH STRATEGIÍ ČTENÁŘE 907
Dana Vicherková

NEZAMĚSTNANOST ABSOLVENTŮ STŘEDNÍCH ŠKOL V SOUVISLOSTI S RODINNÝM ZÁZEMÍM 914
Marie Borová

FILOSOFIE, POLITOLOGIE A DĚJINY | PHILOSOPHY, POLITICS AND HISTORY

KAŽDODENNÝ ŽIVOT NA PRVOM SLOVENSKOM GYMNÁZIU ROKU 1865 923
Ján Jakubej

EKONOMICKÁ KONCEPCIA - NEMECKO V OBDOBÍ DRUHEJ SVETOVEJ VOJNY 934
Rastislav Pirkovský

MYTHS ABOUT THE FIRST SLOVAK REPUBLIC (1939-1945) ON THE PAGES OF THE CONTEMPORARY PRESS 941
Miroslava Dobrotková

PUBLICISTIKA IDEOVÉHO HNUTÍ ČERVENOBÍLÍ V LETECH 1922–1923 950
Zdeněk Beroun

PŘÍSTUPY A TENDENCE V SOUČASNÉ ETICE SEXUALITY 959
Jan Koumar

APPLICATION OF KAIZEN PHILOSOPHY IN THE LABORATORY OF MEASURING TECHNIQUES 965
Alexandra Javorská, Simona Klvačová, Jan Rybář, Zuzana Peciarová, Stanislav Ďuriš, Milan Kubiš

REFLEXIA HISTORICKÝCH UDALOSTÍ A POLITICKÝCH JAVOV V DIVADELNEJ ARCHITEKTÚRE 20. STOROČIA V STREDOEURÓPSKOM KULTÚRNOM PRIESTORE 973
Peter Mazalán

FENOMÉN NÁHODY AKO JEDEN Z INDIKÁTOROV KVALITY ĽUDSKÉHO ŽIVOTA 981
Júlia Drbúlová

WARSAW AUTUMN – A PHENOMENON OF THE 50S, 60S AND 70S OF THE 20TH CENTURY 986
Adéla Ziegelbauerová

THE SUPRANATIONALITY OF THE EUROPEAN COMMISSION AND ITS CRITICISM IN TERMS OF EUROSCEPTIC THINKING 995
Monika Práznovská

MEDZINÁRODNÉ ORGANIZÁCIE A ROZVINUTÉ KRAJINY SVETA – PRÍPADOVÁ ŠTÚDIA SLOVENSKÁ REPUBLIKA 1003
Michaela Dénešová

ANALYSIS OF THE EFFORTS TO OVERTURN MEČIAR´S AMNESTIES 1016
Peter Juza, Nikola Šimuneková

THE ACTIVITIES OF SLOVAK WOMEN'S ASSOCIATIONS IN THE NATIONALLY DIVERSIFIED REGIONS OF SLOVAKIA 1914-1945 1026
Michaela Smidová

MESTSKÉ PRÁVO = NEMECKÉ PRÁVO? 1031
Terézia Hišemová

ONYMICKÁ DYNAMIKA MESTSKÉHO SÍDLA VEREJNÝ PRIESTOR AKO PROSTRIEDOK LEGITIMÁCIE ŠTÁTNEJ MOCI 1038
Lenka Tkáč-Zabáková

UKRAINE'S ACCESSION TO THE REGIONAL CONVENTION ON PAN-EURO-MEDITERRANEAN PREFERENTIAL RULES OF ORIGIN 1044
Taras Kepych

PORADNÉ STANOVISKÁ PODĽA PROTOKOLU Č. 16 K DOHOVORU O OCHRANE ĽUDSKÝCH PRÁV A ZÁKLADNÝCH SLOBÔD 1054
Jana Vrabľová

TRADÍCIA RÍMSKEHO INTERDIKTU VČERA A DNES 1063
Darina Kmecová

PRŮMYSLOVÉ INŽENÝRSTVÍ | INDUSTRIAL ENGINEERING

REGULÁCIA VÝŠKY HLADINY NA LABORATÓRNOM MODELY ARMFIELD PCT40 1071
Diana Ráškayová, Marek Laciak, Milan Durdán

COMPARISON OF TWO APPROACHES TO FPGA BASED SINUSOIDAL PWM GENERATORS FOR ELECTRIC POWER FREQUENCY CONVERTERS 1079
Martin Košťál, Tomáš Košťál

INOVACE, TECHNOLOGIE | INNOVATION, TECHNOLOGY

SYTÉMOVÝ NÁHĽAD DO GLOBÁLNEJ ÚSPEŠNOSTI INOVAČNÉHO MANAŽMENTU TECHNOLÓGIÍ 1088
Marek Jemala

SYSTÉMOVÝ NÁHĽAD DO TECHNOLOGICKEJ PRÍPRAVY VÝROBY A INOVÁCIÍ PRIEMYSELNÝCH PODNIKOV 1097
Marek Jemala, Alena Pauliková, Patrik Brigant

REALIZACE PŘENOSNÉHO ETALONU NA KALIBRACI OČNÍCH TONOMETRŮ 1111
Jan Rybář, Miroslav Chytil, Stanislav Ďuriš, Simona Klvačová, Alexandra Javorská, Milan Kubiš

PRAKTICKÉ POUŽITÍ MOBILNÍ LABORATORNÍ DEPOLYMERIZAČNÍ JEDNOTKY V DAQING (ČÍNA) PRACOVNÍKY SPOLEČNOSTI ENRESS A VYSLEDKY TESTOVÁNÍ VE SPOLUPRÁCI S CHINA UNIVERSITY OF PETROLEUM, BEIJING 1120
Libor Baraňák, Miloslav Bačiak

ORANGE PEEL WASTE AS A REINFORCING MATERIAL FOR PLASTICISED PVC 1127
Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, Csaba Kónya, Gabriella Szemere

TECHNOLOGY INNOVATION TRANSFORMING POLICE SERVICES 1133
Afërdita Qekaj-Thaqi, Leon Thaqi

INFORMATIKA A INFORMAČNÍ TECHNOLOGIE | INFORMATICS AND INFORMATION TECHNOLOGY

DATA FLOW CONTROLLER 1145
Said Krayem, Ivo Lazar, Pavel Kovařík Mohammad Kadi, Awwama Emad, Mohamad Alarsan

MODELOVÁNÍ OPTIMALIZAČNÍCH ÚLOH 1149
Ondřej Míča

VYUŽITÍ HUDEBNÍ TEORIE PŘI ŘEŠENÍ OPTIMALIZAČNÍCH PROBLÉMŮ 1153
Ondřej Míča

THE QUADRATIC PROGRAMMING IN MODELLING OF INFORMATION SYSTEMS 1157
Andrey Semakhin

UMELÁ INTELIGENCIA V NOVÝCH MÉDIÁCH 1167
Michaela Stopková

EXTRACTION OF INFORMATION FROM .NET EXECUTABLE FILES 1177
Marek Milkovič

OCHRANA SÚKROMIA A OCHRANA OSOBNÝCH ÚDAJOV NA SOCIÁLNYCH SIEŤACH 1186
Eleonóra Beňová, Silvia Treľová

INTERNET VECÍ - FENOMÉN SÚČASNOSTI 1195
Magdaléna Cárachová

OPTIMISED RAIN EVENT SELECTION STATISTICS FOR SATELLITE PROPAGATION 1203
Bernard Adjei-Frimpong, Laszlo Csurgai-Horvath

MEASUREMENT OF PARAMETERS IN IP NETWORKS 1211
Miloslav Filka, David Grenar, Lukas Gregor

PŘÍRODNÍ VĚDY | NATURAL SCIENCES

HODNOTENIE HORMETICKÉHO ÚČINKU ARZÉNU NA RAST KUKURICE SIATEJ (*ZEA MAYS C*V. CHAPALU) 1220
Beáta Piršelová, Ľudmila Galuščáková, Libuša Lengyelová, Roman Kuna

BEZPEČNOSŤ KONZUMÁCIE FAZULE ZÁHRADNEJ DOPESTOVANEJ VO VYBRANÝCH LOKALITÁCH SLOVENSKA 1224
Mária Timoracká, Nikola Mikušková, Ľuboš Harangozo

NEURAMINIDASE INHIBITORS OF INFLUENZA TYPE A - A MINI REVIEW 1231
Sabina Lipničanová, Daniela Chmelová, Miroslav Ondrejovič

LOW-MOLECULAR COUMPOUNDS FROM PLANT MATERIALS WITH INHIBITION ACTIVITY TO SERINE PROTEASES 1240
Barbora Legerská, Daniela Chmelová, Miroslav Ondrejovič

BACTERIOCINS AS TOOL FOR MILK PROTECTION DURING PREPROCESSING PHASE 1250
Lucia Pukančíková, Miroslav Ondrejovič, Daniela Chmelová

PREVENCIA INFEKCII KRVNÉHO RIEČISKA U HOSPITALIZOVANÝCH PACIENTOV 1259
Lívia Hadašová, Iveta Ondriová, Anna Eliášová, Terézia Fertaľová, Jana Cuperová, Jana Cínová

VÝZNAM HYGIENY RÚK ZDRAVOTNÍCKYCH PRACOVNÍKOV V PREVENCII NOZOKOMIÁLNYCH NÁKAZ 1267
Iveta Ondriová, Anna Eliašová, Terézia Fertaľová, Lívia Hadašová, Jana Cuperová

MOTIVAČNÉ ČINITELE V PRÁCI SESTRY PRACUJÚCEJ V NEMOCNIČNÝCH ZARIADENIACH 1273
Jana Cuperová, Terézia Fertaľová, Lívia Hadašová, Iveta Ondriová, Ján Suszka

STAVEBNICTVÍ, STROJÍRENSTVÍ | ENGINEERING, BUILDING INDUSTRY

IMPLEMENTACE LEGISLATIVNÍCH POŽADAVKŮ VE VZTAHU K BEZBARIÉROVÉMU PROSTŘEDÍ - PŘÍPADOVÁ STUDIE 1282
Petra Kocurová, Alžběta Bílková, Kateřina Kocurová

MATEMATICKÝ MODEL PRO VÝPOČET SILOVÝCH POMĚRŮ V KINEMATICKÝCH VAZBÁCH ZUBOVÉHO ČERPADLA 1290
Petr Hrubý, Jan Procházka, Pavla Židková

USE OF NATURAL VENTILATION IN DOUBLE TRANSPARENT FAÇADES DURING EXTREME SEASON BOUNDARY 1300
Kristýna Valoušková

VLIV STÍNĚNÍ NA TEPELNOU STABILITU EKOLOGICKÝCH DOMŮ 1311
Šárka Čálková, Tomáš Váchal, Jakub Diviš

TECHNOLOGIE VÝSTAVBY EXPERIMENTÁLNÍ BUDOVY Z NOSNÝCH SLAMĚNÝCH BALÍKŮ 1317
Jan Holeček, Michal Procházka, Tomáš Váchal, Hana Najmanová

OPTIMIZATION OF PARTS FOR LARGE LOADS IN SOLIDWORKS 1327
Stanislav Prýl, Jaroslav Fábera

NON–LINEAR ANALYSIS OF SLENDER MASONRY BEAM 1338
Marek Vokál, Michal Drahorád

ENERGY EFFICIENT HEATING AND DOMESTIC HOT WATER SYSTEMS IN THE MULTI-DWELLING HOUSE – CASE STUDY 1348
Martin Kovac, Katarina Kovacova

THEMATIC DOMAIN | I.

PODNIKOVÉ ŘÍZENÍ

BUSINESS MANAGEMENT

NUMBER OF PAPERS: 17



EXAMINATION OF THE COMPANY VALUATION PERTAINING TO MANUFACTURING SECTOR USING THE SELECTED METHOD

Elena Drabiková

Abstract

The goal of this paper is to analyze and evaluate one from the approaches used for company valuation - the discounted cash flow method. The main variables are considered with regard on primary objective that is identification of the most influential factor affecting development of the company value by utilization listed valuation method. Further intentions involve determination of the impact of all analyzed variables on the resulting company value change. Sensitivity analysis is applied for these purposes accompanied with other calculations. The research pertains to manufacturing sector and considers data for time period of five years. The examination shows that the weightiest factor of the discounted cash flow approach affecting development of the company value is weighted average cost of capital.

Key words: *company valuation, discounted cash flow method, sensitivity analysis*

INTRODUCTION

The company valuation issue appears, in considering the current global and not only economic trends, highly topical. Practice shows that enterprise sector dynamism requires greater attention in relation to the valuation of the companies. There are manifold reasons for such a move.

The findings resulting from the valuation realization are primarily desired for the sale or purchase of company (PriceWaterhouseCoopers, 2015). Other valuation motives include acquisitions, mergers, enterprise reorganization, and preparation of a strategic plan or carrying out a capital investment such as building a new plant. The need for valuation of the whole company or its part is present also during deciding to invest into research and development, introducing a new product on the market, selling respectively buying intangible assets which may be trademarks. Not least, the reasons are analyzing the value of the equity share, obtaining funding for the project, establishing a joint venture, determining the value of device, property or trademark for business as well as legal purposes, recapitalization of the company, sale of shares, demonstrating adequacy of pledged (in relation to banking and other financial institutions) or ensuring compliance with the requirements under accounting standards as at national same as transnational level.

1 LITERATURE REVIEW

Models used for company valuation have been an objective of numerous empirical studies more recently. Research focusing in this respect can be divided into two basic levels. The first is the application of valuation model/models in order to determine value of a company, respectively its parts. The second one is the model/models use for testing their functionality, investigating restrictions they involve, simplifications needed to their application and thus also potential errors in the results. The researchers compare the results received using each valuation model as well as models' parameters. All of this is followed up by efforts on improvements.

In general, theoretical background assumes the similar valuations obtained by various methods for valuation. It applies on condition of adequate model construction. In this connection, Fernández (2007) conducted the comprehensive research. He examined the ten most regularly used methods for valuing companies by discounted cash flows. Moreover, he considered nine different theories and realized calculations. The result was the application of all analyzed methods complemented by all theories to an example. Consequently, the valuation of the specific company was performed. By comparison of the received valuations the conclusions were formulated. Each of the utilized approach leaded to the same value. The author commented this feature as logical, since all ten methods investigate the same reality over the identical hypotheses. The only divergence is in the cash flows picked up as the starting point for the valuation purpose. The initial premise was confirmed in regard to stated research.

Dissimilarity in estimations using different models for company valuation explored Lundholm and O'Keefe (2001). The attention was concentrated on the discounted cash flow model and the residual income model. Research stimulus was a contradiction between consistent fundamentals of the both models and inconsistent valuations gained by practitioners and researchers. Authors claimed the appraisals were the same by application of the residual income model and discounted cash flow model in the situations with correct models practice. Consequently, the proper execution problem was identified.

Demirakos, Strong and Walker (2004) undertook to find out which valuation models financial analysts typically apply. They described the valuation practices through exploring 104 reports prepared by analysts. The variant valuation models analysis was adopted. Substantial value characteristics were the crucial target in view of the fact that analysts forecast them and subsequently predictions are implemented to the company valuation. Hypothesis testing showed that analysts' preferences appeared in cash flow based models and earnings based models. Equal findings reached Imam, Barker and Clubb (2008). Considerably significant was the discounted cash flow method. Discounted cash flow model yielded to the investment analysts an inherent flexibility and complex high reliability.

Popularity and frequent use of the discounted cash flow approach confirmed Imam, Chan and Shah (2013) in the recent study. They verified European investment analysts' inclination to the several valuation models. They came to the conclusion that earnings multiples and the discounted cash flow technique were retained as the most often implemented. Likewise Cornell (2013) denoted discounted cash flow method mostly as the choice number one in valuation practice in his paper. However, he declared according to the analysis he completed that the residual earnings approach, representing related income method to the discounted cash flow method, should not be underrated. Cornell highlighted satisfying resistance to parameters' variance, economic indisputability and stabile status of this technique. The question about uncertainty in the valuation established French and Gabrielli (2005). The aim was to solve the integration of some uncertainty types to the discounted cash flow model. Account was taken of the fact that market, inputs and data uncertainty enter to the company valuation.

In the context of data sources serving as a basis for valuation, it can be cumulatively stated that empirical studies operate usually with various financial statements, databases comprising financial data and stock exchanges figures. For some more information, see e.g. Štofa (2016). However, financial statements (Healy and Palepu, 2012) render the most affordable data on economic activities of the companies.

2 RESEARCH

As the realized empirical studies showed, the cash flow based models figure among the most common company valuation models. Even more, they are the most preferred in the vast majority of cases. Favored one is the discounted cash flow method. Except for the eminent cluster of authors and analysts using discounted cash flow approach, there exists an argument (Fernández, 2015) about proper conceptual correctness related just to the methods based on cash flow discounting. These were the reasons for choosing discounted cash flow as a decisive method that was subjected jointly with specific data to further testing.

The value of company (VC) is defined under the discounted cash flow method by following equation:

$$V_C = \sum \left[\frac{FFCF_t}{(1+WACC)^t}\right] + \left[\frac{\frac{FFCF_t(1+g)}{WACC-g}}{(1+WACC)^t}\right] + NOA\,, \tag{1}$$

where: $FFCF_t$ is future free cash flow in period t,
$WACC$ is weighted average cost of capital,
g is annual growth rate of future free cash flow,
NOA are non-operating assets.

Weighted average cost of capital is the discount rate in this instance. It expresses the weighted average of opportunity costs - value that investor sacrificed and could gain by investing to the similar investment. The WACC meets (Chaplinsky, 2000) assumed inflation rate, risk given by being in business as well as currency of the cash flow supposed to be discounted. In addition, the WACC should further encompass fitting target weights pertain to the next funding.

Mentioned matters about weighted average cost of capital constitute only some of the significant aspects which are contained in WACC. Its important role led to supposition about the indication as the most influential agent in the equation. Thus, this paper assumes the WACC has a crucial impact on the company value development. The postulate applies to the discounted cash flow model. Theoretical suggestions stimulated the investigation.

Calculations were made for the purpose of identification the key variable involved in the company value computation. This corresponds to the primary aim of the research. In other words the goal was to determine the weightiest factor of the discounted cash flow method affecting development of the company value. The subordinate objective was to find out the impact of change associated with each of the elements in the discounted cash flow approach on the change of the resulting company value development.

Method used for enumeration was sensitivity analysis. As Frey and Patil (2002) stated the sensitivity analysis is helpful in detecting the acute spots with control character, organizing preferences regard to the subsidiary eventual studies or acquisition of data, and naturally testing and confirming a formulated model. Respect to the intended objectives of the paper this technique was the most appropriate choice.

The source of data used for analysis has origin in the paper by Reddy, Agrawal and Nangia (2013). Data were applied in initial calculations of this research and were substituted as

inputs. The further calculations were carried out on their basis as well as the following sensitivity analysis. Databases containing financial information, stock exchanges and financial statements served as data sources. Right a highly practical nature of these business statistics led to the choice for desirable data set. A time period for analysis realization in this paper was five years. Selected financial results pertain to manufacturing sector.

It should be noted that research disposes with restriction. This is in the form of abstracting from non-operating assets even though they are part of the equation (1) which was fundament for discounted cash flow method performance.

3 FINDINGS

The results refer the change in company value caused by changing input factors. The key input factors were taken into account. Considering that discounted cash flow method was analyzed, the main inputs pertain to this approach. Exactly, these are future free cash flow (FFCF), weighted average cost of capital (WACC) and growth rate in future free cash flow (g). Obtained variations of the company value are reported in Table 1.

Table 1 Percentage changes in company value

Factor	-10%	-5%	0%	5%	10%
FFCF	-10.00%	-5.00%	0.00%	5.00%	10.00%
WACC	20.21%	9.28%	0.00%	-7.98%	-14.92%
g	-4.64%	-2.38%	0.00%	2.49%	5.12%

Source: author’s calculations

Findings stated in Table 1 stand on previous calculations that were realized before the actual finishing enumeration. In the first step the value of the company was quantified. Equation (1) was the authoritative tool for this purpose. Next the conversion of every single input variable was initiated pursuant to presumed changes. Modifications represented an accrual of the input value so as its decrement. Subsequently, company value figuring was performed with regard on each individual change. Admittedly, the change of only one factor was accepted. This was the investigated factor. Other factors remained fixed.

The mathematical determination indicating absolute numbers of the changes in company value with reflection of the percentage changes in variables was comprised in the following step. Order to increase transparency the calculations yielding percentage of changes in value of the company were carried out. Such action later facilitated determination of the impact that the given input factor has on the final company value development. Since the variations of the inputs were expressed as a percentage, variations in company value should be expressed as a percentage, too. Findings are presented in Table 1. There is not only the size of changes in value referred. Also their positive respectively negative development compared to the original state is provided.

To describe reached results, the following figures (Figure 1 to Figure 4) are stated. There are depicted exact company value variations in percentage as a consequence of particular main factors changes. The key matter is separate delineation pursuant to percentage variable change criterion.

In accordance with mentioned criterion, the first analyzed level corresponding to percentage change of variables is illustrated in Figure 1 below. Hence, there are represented the final changes of the company value considering modification of major factors at 10% decrease.

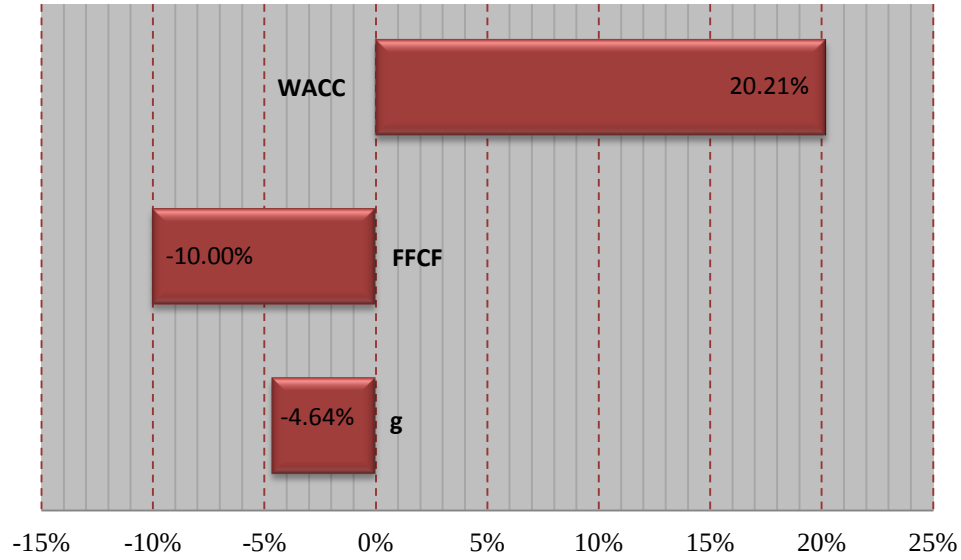


Figure 1 Alteration in company value development due to change of major factors at 10% decrease
Source: author's calculations

The numbers at the horizontal axis represent accrual or diminution of the company value. The first bar deputizes weighted average cost of capital. Its change at the level of 10% decline caused 20.21% company value increment. The second bar coincides with results belong to future free cash flow adjustment. The company value modification is equal to variable modification size. The last one discusses growth rate in future free cash flow. In this case the company value responds by 4.64% decrease.

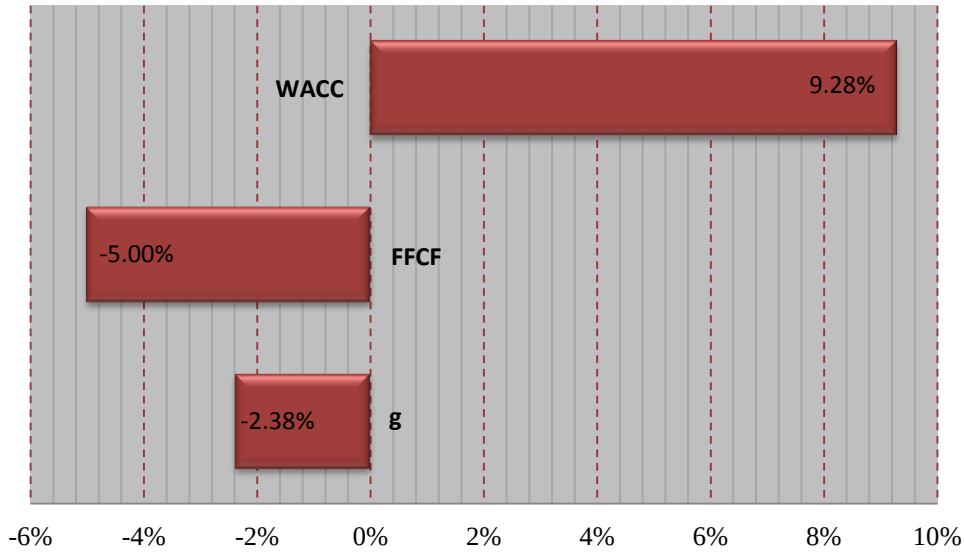


Figure 2 Alteration in company value development due to change of major factors at 5% decrease
Source: author's calculations

In compare with Figure 1, Figure 2 deals with essential factors change in decrease form, as well. The difference rests in the value itself. New figures of the company value are reached under 5% fall in factors amount. The company value reflection on factor change is the smallest for growth rate. Further the cash flow is next. The most significant feedback can be observed for weighted average cost of capital, exactly 9.28%.

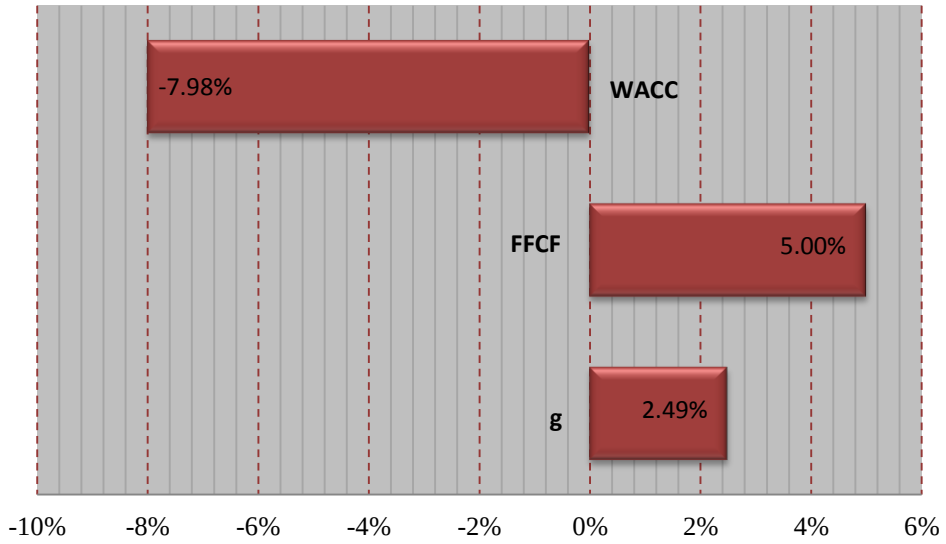


Figure 3 Alteration in company value development due to change of major factors at 5% increase
Source: author's calculations

Figure 3 and Figure 4 depict an alteration in company value development based on enhancement of particular variables. Looking at Figure 3, the factors increase of 5% gives the following results for company value - growth in instance of future free cash flow (5.00%) and also growth rate in future free cash flow (2.49%) and drop in instance of weighted average cost of capital (-7.98%). In general, Figure 4 shows the similar company value development trend. The weighted average cost of capital stands at the first place. Second position belongs to the future free cash flow and third position to the growth rate.

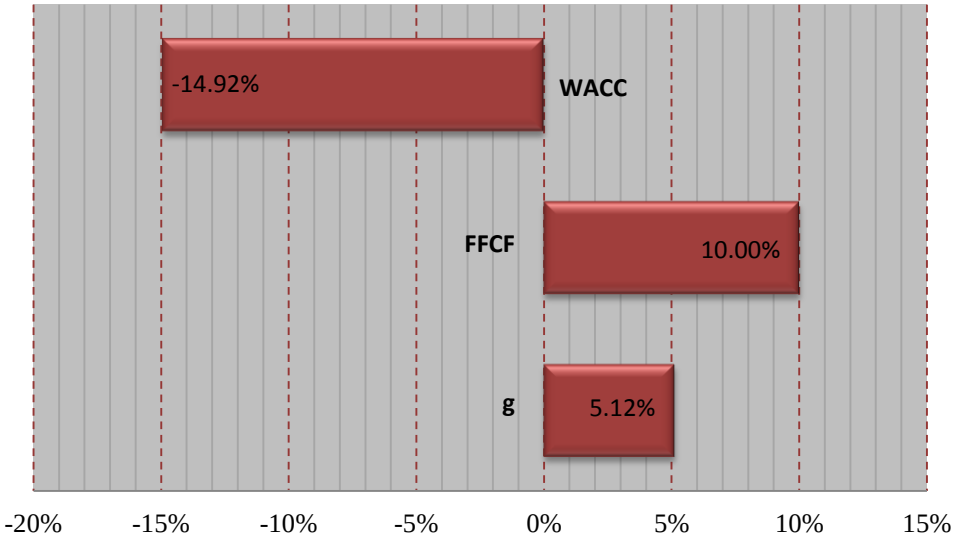


Figure 4 Alteration in company value development due to change of major factors at 10% increase
Source: author's calculations

CONCLUSION

The topic of valuing the companies or their parts shows a dynamically developing growing trend. This concerns both the private sector and the public sector. In the practice, there exist various methods for company valuation. The paper dealt with discounted cash flow method.

The primary aim of the research was determination the key variable involved in the company value calculation using stated discounted cash flow approach. The subordinate objective was to identify the impact of change associated with each of the agents in the selected approach on the change of the resulting company value development. Method used for computation and fulfillment of defined objectives was sensitivity analysis.

The weightiest factor of the discounted cash flow approach affecting development of the company value was weighted average cost of capital. Another finding is that percentage alteration in weighted average cost of capital value was always smaller than percentage alteration in company value.

Research further proved that the second most influential variable emerging within the discounted cash flow method for company valuation is future free cash flow. Uniqueness lay on, in compare with other studied components, figures uniformity of the company value modification grade and factor modification grade. The growth rate took the third place.

Looking at findings consequent from various authors work, they are similar to the findings in this paper. In general it can be stated that the weighted average cost of capital has leadership in achieving change of the company value when considering application of the discounted cash flow method as principle for valuation. For that reason, the focus should be on paying more attention to its calculations, related previous analyzes and input data, as well. Even the slight inaccuracy, incompleteness or simplification can cause a quite capital differences in the final value of assessed company.

Acknowledgment

This work was supported by the Slovak Research and Development Agency under the contract No. APVV-14-0892.

References

1. Chaplinsky, S. (2000), "Methods of Valuation for Mergers and Acquisitions", Working Paper UVA-F-1274.
2. Cornell, B. (2013), "Discounted Cash Flow and Residual Earnings Valuation: a Comparison in the Context of Valuation Disputes", *Business Valuation Review*, Vol. 31-32, No. 4, 1-3, pp. 157-164.
3. Demirakos, E. G., Strong, N. C., Walker, M. (2004), "What Valuation Models Do Analysts Use?", *Accounting Horizons*, Vol. 18, No. 4, pp. 221-240.
4. Fernández, P. (2015), "Company Valuation Methods", SSRN Working Paper No. 274973.
5. Fernández, P. (2007), "Valuing Companies by Cash Flow Discounting: Ten Methods and Nine Theories", *Managerial Finance*, Vol. 33, No. 11, pp. 853-876.
6. French, N., Gabrielli, L. (2005), "Discounted Cash Flow: Accounting for Uncertainty", *Journal of Property Investment & Finance*, Vol. 23, No. 1, pp. 75-89.
7. Frey, H. C., Patil, S. R. (2002), "Identification and Review of Sensitivity Analysis Methods", *Risk Analysis*, Vol. 22, No. 3, pp. 553-578.

8. Healy, P. M., Palepu, K. G. (2012), *Business Analysis and Valuation: Using Financial Statements*, 5th Edition, Mason: Cengage Learning.
9. Imam, S., Barker, R., Clubb, C. (2008), "The Use of Valuation Models by UK Investment Analysts", *European Accounting Review*, Vol. 17, No. 3, pp. 503-535.
10. Imam, S., Chan, J., Shah, S. Z. A. (2013), "Equity Valuation Models and Target Price Accuracy in Europe: Evidence from Equity Reports", *International Review of Financial Analysis*, Vol. 28, pp. 9-19.
11. Lundholm, R., O'Keefe, T. (2001), "Reconciling Value Estimates from the Discounted Cash Flow Model and the Residual Income Model", *Contemporary Accounting Research*, Vol. 18, No. 2, pp. 311-335.
12. PriceWaterhouseCoopers (2015), "Valuations", PriceWaterhouseCoopers.
13. Reddy, K. S., Agrawal, R., Nangia, V. K. (2013), "Reengineering, Crafting and Comparing Business Valuation Models: the Advisory Exemplar", *International Journal of Commerce and Management*, Vol. 23, No. 3, pp. 216-241.
14. Štofa, T. (2016), "The Particularities of Russian Stock Market" *Transactions of the Universities of Košice*, No. 2, pp. 36-43.

Contact

Ing. Elena Drabiková, PhD.
Institute of Control and Informatization
of Production Processes
BERG Faculty
Technical University of Košice
Boženy Němcovej 3, 042 00 Košice
Slovakia
e-mail: elena.drabikova@tuke.sk

ŠTRUKTÚRA A VÝVOJ VODCOVSTVA V SLOVENSKÝCH STARTUPOCH

STRUCTURE AND DEVELOPMENT OF LEADERSHIP IN SLOVAK STARTUPS

Ivana Ljudvigová

Abstrakt

Jednou z najčastejších príčin zániku startupov je neschopnosť zakladateľa vytvoriť funkčný startupový tím. Startupy sú preto považované za ideálny kontext na štúdovanie vertikálneho i tímového vodcovstva. V rámci vertikálneho vodcovstva je potrebné skúmať kvalitu schopnosti zakladateľa startupu sformulovať originálnu a atraktívnu víziu, inšpirovať spolupracovníkov k jej dosiahnutiu, povzbudzovať ich v krízových situáciách a tiež rozvíjať ich kompetentnosť. Podstatou tímového vodcovstva je vytvorenie súdržného tímu, ktorého členovia sa navzájom podporujú, majú rozdelené roly, zodpovednosti a právomoci. Na základe výskumnej vzorky 76 slovenských startupov sme skúmali úlohy zakladateľa v startupe a kvalitu tímovej práce v startupovom tíme v priebehu 3 fáz. Výsledky výskumného projektu pomáhajú objasniť povahu vertikálneho a tímového vodcovstva v startupe.

Kľúčové slová: *startup, tím, vertikálne vodcovstvo, tímové vodcovstvo*

Abstract

One of the most common causes of extinction of startups is the inability of the founder to create a functional startup team. Startups are therefore considered the ideal context for studying both vertical and team leadership. Within the framework of vertical leadership, it is necessary to examine the quality of the startup founder's ability to formulate an original and attractive vision, to inspire co-workers to achieve it, to encourage them in crisis situations and also to develop their competence. The essence of team leadership is the creation of a cohesive team, whose members support each other, have divided roles, responsibilities and authorities. Based on a research sample of 76 Slovak startups, there was investigated the founder's tasks in the startup and the quality of teamwork in the startup team during 3 phases. The results of the research project help clarify the nature of the vertical and team leadership in the start-up.

Keywords: *startup, team, vertical leadership, team leadership*

ÚVOD

Založenie a rozvoj startupu sa nevyhnutne spájajú s vodcovstvom, pretože uplatňované vodcovstvo má rozhodujúci vplyv na úspech alebo neúspech startupu (Zäch, Baldegger, 2014). Aby startup pracoval ako tím, je potrebné zjednotiť sa v záujme dosiahnutia spoločného cieľa, a to je práve zmyslom vodcovstva. Tam, kde je dôležitá tímová práca, tam je dôležité aj vodcovstvo, a naopak. Tímová práca a vodcovstvo sú pre úspech startupu nevyhnutné. Naopak absencia vodcovstva môže mať rad negatívnych dôsledkov pre startupové podnikanie. Startup bez vodcu, ktorý vytvára a komunikuje víziu, inšpiruje a koučuje zamestnancov a zasahuje do procesov a podnikových činností, keď je to potrebné, pôsobí na trhu bezcieľne (Zäch, Baldegger, 2014). Napriek tomu je pomerne málo empirických výskumov, ktoré sa zaoberajú témou vodcovstva v startupoch. Mnohé poznatky v tejto oblasti vychádzajú stále len z teoretického skúmania. Väčšina autorov uvádza, že v podnikoch existujú dva základné druhy vodcovstva, a to vertikálne vodcovstvo (z angl.

vertical leadership), ktoré je založené na poznatkoch a rozhodnutiach jedného človeka (vodcu) a tímové vodcovstvo, ktoré zapája do rozhodovacích procesov viacerých členov tímu. Hoci sa odborníci zhodujú, že vhodný typ vodcovstva je pre úspech startupu nevyhnutný, určiť dôsledky uplatňovania týchto základných typov vodcovstva v startupoch vyžaduje podrobnejšie preskúmanie.

1 CIEĽ, METÓDY VÝSKUMU A VÝSKUMNÁ VZORKA

Pojem startup je dnes už pomerne bežne používaný. Prevažná časť odbornej literatúry zaoberajúcej sa problematikou startupov sa však sústreďuje na inú oblasť než vodcovstvo, napríklad na financovanie, podnikateľské modely alebo startupové ekosystémy. Téme vodcovstva, ale aj tímovej práce v startupe sa venuje skromnejšia pozornosť. Napriek tomu sú aj tieto témy do istej miery v literatúre rozpracované. Existujúce diela však príslušné poznatky buď nedokladajú empirickými dôkazmi, alebo sú výsledky empirických skúmaní dosť nekonkrétne.

K zhode dochádza v súčasných poznatkoch v tom, že využívanie vodcovstva aj tímová práca sú považované za jedny z dôležitých predpokladov úspechu startupu. V čom sa ale odborná literatúra rozchádza, sú závery týkajúce sa vertikálneho a tímového vodcovstva. O efektivite využívania každého z týchto typov vodcovstva sa vedie diskusia.

Hlavným cieľom príspevku je skúmať zmenu štruktúry vertikálneho a tímového vodcovstva počas troch fáz vývoja startupového podnikania. Z uvedeného hlavného cieľa vyplývajú nasledovné čiastkové ciele:

- určiť, ktoré schopnosti vodcu (zakladateľa) startupu sú najvýznamnejšie pri uplatňovaní vertikálneho vodcovstva,
- posúdiť vývoj vybraných parametrov vertikálneho vodcovstva v priebehu skúmaných fáz startupového podnikania,
- zistiť, ktoré parametre tímového vodcovstva najvýraznejšie determinujú kvalitu tímu,
- zhodnotiť premeny uplatňovaného tímového vodcovstva v čase,
- identifikovať úlohy, ktoré musí zakladateľ/zakladatelia startupu vykonávať,
- zistiť, či niektorý typ vodcovstva z dvojice vertikálne a tímové je pre využitie v startupe jednoznačne vhodnejším a do akej miery je možné v startupe kombinovať využívanie vertikálneho a tímového vodcovstva.

Na skúmanie štruktúry a vývoja startupového tímu boli zvolené parametre na základe preštudovania dostupných literárnych zdrojov o vodcovstve v startupoch. Kvalita vertikálneho vodcovstva v startupe sa hodnotí pomocou štyroch premenných, ktorými sú kvalita vodcu ako tvorcu originálnej vízie, jeho schopnosť inšpirovať, povzbudzovať a rozvíjať kompetentnosť spolupracovníkov. Kvalita tímového vodcovstva a vzťahov v tíme je skúmaná pomocou siedmich kritérií, ktorými sú súdržnosť, vzájomná podpora a dôvera členov tímu, deľba rolí v tíme, deľba práce, kooperácia, tvorivosť členov tímu, osobná iniciatíva a príspevok členov tímu k celkovému výsledku.

Výskum prebehol v rokoch 2016-2017 a uskutočnil sa v troch fázach s cieľom pozorovať premeny startupového podnikania v čase. Pôvodnú výskumnú vzorku v 1. fáze tvorilo 76 startupov. Vzhľadom na turbulentnosť začínajúceho podnikania a vysokú pravdepodobnosť neúspechu na trhu počet startupov neostal stabilný. V druhej fáze sa výskumného projektu zúčastnilo 73 startupov a do tretej fázy „prežilo“ už len 53 startupov. Každý startup bol skúmaný počas všetkých troch fáz jedným členom výskumného tímu, ktorý v riadenom rozhovore spravidla s vedúcou osobou osobne zaznamenal odpovede na zatvorené aj otvorené otázky do dotazníka. Kvalita vertikálneho a tímového vodcovstva boli hodnotené prostredníctvom stupnice: 1 – minimálna, 2 – nízka, 3 – vyhovujúca (no mohla by byť lepšia), 4 – uspokojivá (no ešte sú rezervy), 5 – vynikajúca.

2 TEORETICKÉ VÝCHODISKÁ VERTIKÁLNEHO VODCOVSTVA V STARTUPE

V literatúre venujúcej sa vodcovstvu dominuje vertikálne vodcovstvo. Ide o vodcovstvo založené na menovanom, formálnom vodcovi, ktorým je CEO alebo výkonný riaditeľ. Vertikálne vodcovstvo sa sústreďuje na úlohu zakladateľa (vodcu) pri rozvoji nového podniku (Klotz et al., 2014). Baum, Locke a Kirkpatrick (1998) zistili, že „inšpirácia a vízia zakladateľa sú hnacou silou startupu". Podobne podľa Timmonsa a Spinelliho (2008) je pre úspech startupu dôležité, aby zakladateľ startupu bol dobrým vodcom.

Zäch a Baldegger (2014) uvádzajú, že startupy majú často plochú organizačnú štruktúru s nízkym počtom hierarchických úrovní a prevažne majú len jednu úroveň riadenia, na ktorej sa nachádza zakladateľ a vodca v jednej osobe. Podobne Vendetti (2010) uvádza, že startupy mávajú veľmi jednoduchú organizačnú štruktúru s právomocou centralizovanou na vrchole hierarchie. Podľa Timmonsa a Spinelliho (2008) v úspešných začínajúcich podnikoch demokracia a neopodstatnená rovnosť v rozdelení rozhodovacej právomoci nefungujú, a preto je vhodnejšie jasne určiť vodcu, ktorý má vrcholové právomoci a zodpovednosť.

Vertikálne vodcovstvo je zreteľné v startupe predovšetkým v začiatkoch podnikania startupu. Vodca formuluje víziu, stanovuje počiatočné ciele, získava potrebné zdroje (finančné, nefinančné a ľudské), ovplyvňuje investorov, partnerov, dodávateľov či zákazníkov. Osobnosť zakladateľa, jeho podnikateľská história, angažovanosť, dojem, dôvera a sympatia, ktoré vyvoláva u investorov a partnerov, sú rozhodujúcimi kritériami pre získanie potrebných investičných zdrojov. Preukazovanie húževnatosti a nezlomnosti, spoľahlivosti a čestnosti (Timmons, Spinelli, 2008) sú najdôležitejšími vlastnosťami začínajúceho podnikateľa, ktoré oceňuje potenciálny investor.

Na rozdiel od zabehnutých podnikov, v startupoch neexistujú štandardizované operačné postupy, štruktúry alebo procesy. V startupe robí skoro všetky kľúčové strategické aj taktické rozhodnutia jeho zakladateľ a tieto rozhodnutia sú založené prevažne na jeho intuícii (Vendetti, 2010). Správanie vodcov (zakladateľov) má preto väčší a priamy dopad na výkon startupu v porovnaní s ostatnými väčšími a zabehnutými podnikmi. Potvrdzujú to Kets DeVries a Miller (1986), podľa ktorých „individuálne vlastnosti a správanie týchto vodcov ovplyvňujú vývoj a dlhodobú udržateľnosť startupu". Rovnako podľa Hambricka a Masona (1984) sú „startupy často vnímané ako odraz svojho top manažmentu". Rôzne výskumy podporujú argument, že správanie zakladateľov sa odráža vo vývoji a dlhodobej udržateľnosti startupu. Timmons a Spinelli (2008) dokonca tvrdia, že „aj v startupoch s vysokým potenciálom rastu sú podľa výskumov dôležitejší zakladatelia než technológia".

3 TEORETICKÉ VÝCHODISKÁ TÍMOVÉHO VODCOVSTVA V STARTUPE

Keď je startup úspešný, značné zásluhy sa pripisujú zakladateľovi ako jednotlivcovi, ktorý podnik vedie (Klotz et al., 2014). Ale podľa Timmonsa a Spinelliho (2008) je pre úspech startupu okrem silného vodcovstva zakladateľa dôležité aj budovanie tímu, ktorého členovia majú navzájom sa dopĺňajúce zručnosti, talent a schopnosť pracovať ako tím. Klotz et al. (2014) uvádzajú, že väčšinu nových podnikov zakladajú a vedú tímy, nie jednotlivci. Pearce a Sims (2002) zistili, že „uplatňovanie tímového vodcovstva umožňuje podnikom dosiahnuť lepšie výsledky v porovnaní s vertikálnym vodcovstvom, a to najmä v riadení zmien a vo virtuálnych tímoch".

Pearce (2004) definuje tímové vodcovstvo ako „súčasné, pretrvávajúce a vzájomné ovplyvňovanie ľudí a procesov v rámci tímu, ktoré je charakteristické sériovým vznikom oficiálnych aj neoficiálnych vodcov". Podľa Manza a Simsa (1993) tímy s vysokým výkonom nemajú štruktúru formálneho vodcovstva. To znamená, že v danej situácii nerozhoduje vodca tímu, ale člen tímu, ktorý ma najviac relevantných vedomostí či skúseností s daným problémom alebo podnikateľskou príležitosťou. Zatiaľ čo vertikálne vodcovstvo závisí od múdrosti jednotlivca (vodcu), tímové vodcovstvo čerpá z nápadov a znalostí celého tímu.

Toto vodcovstvo pochádza zvnútra tímu, čo znamená, že vodcovstvo je tímový proces, ktorý je vykonávaný tímom ako celkom a nie vopred určeným jednotlivcom. V literatúre okrem výrazu tímové vodcovstvo nájdeme aj označenie distribuované, spoločné, rozložené alebo kolektívne vodcovstvo.
S rastom startupu nie je možné, aby jeden vodca vykonával všetky funkcie a niesol všetku zodpovednosť, nech je akokoľvek schopný či charizmatický. Častou chybou v startupoch je práve nedostatočná deľba práce. Startupisti chcú všetko robiť sami, nevedia delegovať a samotní zakladatelia nemajú rozdelené kompetencie a zodpovednosť. Zakladateľ startupu sa musí naučiť delegovať úlohy a právomoci a nesnažiť sa robiť všetko svojpomocne. Mnoho dobrých nápadov sa nepretaví do úspešných produktov, pretože zakladateľ startupu nie je schopný a ochotný sa podeliť s myšlienkou, delegovať právomoci a vytvoriť tím. Neschopnosť zakladateľa pracovať v tíme, resp. neschopnosť vytvoriť kvalitný tím identifikujú výskumy ako jednu z najčastejších príčin zlyhávania startupov (výskum od CB Insider alebo podnikateľa Mitchella Harpera).
Väčšina investorov pri rozhodovaní o investovaní do určitého podnikateľského nápadu hľadá kompetentný, vysoko zaujatý a dôveryhodný manažérsky tím s relevantnou skúsenosťou v príslušnom odvetví. Kvalita startupového tímu sa podľa Timmonsa a Spinelliho (2008) posudzuje podľa kritérií: skúsenosti, motivácia, vytrvalosť, kreativita, zodpovednosť, odvaha, adaptabilita, tolerancia rizika a neistoty. Potvrdzujú to Blank a Dorf (2012), podľa ktorých startupový tím musí byť zvyknutý na zmenu, chaos, učenie sa z chýb, riskovanie a nestabilné situácie bez návodov na riešenie, musí byť zvedavý, skúmavý, tvorivý a dychtivý v hľadaní opakovateľného a škálovateľného podnikateľského modelu.

4 ŠTRUKTÚRA A VÝVOJ VERTIKÁLNEHO VODCOVSTVA V JEDNOTLIVÝCH FÁZACH STARTUPOVÉHO PODNIKANIA

Vertikálne vodcovstvo bolo skúmané prostredníctvom štyroch premenných (tab. 1), ktoré hodnotia kvalitu vodcu ako tvorcu originálnej vízie, jeho schopnosť inšpirovať spolupracovníkov, povzbudzovať ich v kritických či neočakávaných situáciách a rozvíjať ich kompetentnosť. Zakladatelia startupov sa prejavili ako výrazní vizionári, no menej úsilia venujú rozvíjaniu kompetentnosti svojich spolupracovníkov formou vzdelávania, koučingu alebo mentoringu.

Premenné vertikálneho vodcovstva	Fáza startupového podnikania		
	1.	2.	3.
Tvorba originálnej a atraktívnej vízie	4,38	4,27	4,22
Schopnosť inšpirovať/nadchnúť/motivovať členov	4,31	-*	-
Povzbudzovanie v prípade akýchkoľvek problémov	4,15	4,05	4,12
Rozvíjanie kompetentnosti spolupracovníkov	3,78	-	-

Tab. 1 Premenné vertikálneho vodcovstva v závislosti od fázy startupového podnikania

Všetky tvrdenia, ktoré hodnotia kvalitu vertikálneho vodcovstva zakladateľa v startupoch dosiahli priemerné hodnotenie 4, čo znamená uspokojivú úroveň. Rozdiely medzi jednotlivými premennými sú mierne, no predsa indikujú, ktorá schopnosť zakladateľov je výraznejšia a ktorá naopak slabšia. Najvyššie hodnotenie (4,38) získali zakladatelia skúmaných startupov v oblasti vizionárstva. Potvrdila sa dôležitosť vodcu pri založení startupu, kedy je potrebné vytvoriť originálnu a atraktívnu víziu nového podnikania a zároveň inšpirovať ostatných, aby stanovené vízie a ciele nasledovali.

* V 2. a 3. fáze výskumného projektu bol zúžený počet tvrdení dotazníka. Z tohto dôvodu bolo možné zmenu v čase skúmať len u vybraných premenných vertikálneho vodcovstva.

Dôležitosť zakladateľa ako tvorcu vízie, ktorá je hnacou silou startupu, potvrdzujú slová zakladateľa startupu, ktorý vytvoril navigáciu pre operačné systémy: „Som exekutívny typ. Nebaví ma sedieť a snívať, práve naopak, pustiť sa do toho a dávať veci do pohybu. Keď začnete veci robiť, podľa mňa práve vtedy začínate snívať o tom, ako to urobiť, prípadne ako to urobiť inak.“ Význam toho, že vodca musí vedieť nadchnúť ľudí pre svoju víziu potvrdzuje aj zakladateľom startupu, ktorý sa zameriava na predaj Pay Per Click reklamy na internete. Hoci sa pôvodne venoval podnikaniu so sprostredkovaním práce, pre nové podnikanie sa mu podarilo strhnúť aj pôvodný pracovný tím. Oznámil kolegom, že pôvodný biznis skončil, vysvetlil im novú víziu a dal ponuku, aby s ním pokračovali. Hoci vyše roka nikomu neplatili mzdu, tím desiatich ľudí napriek tomu ostal a pracovníci získali v podniku minoritné podiely.
Podstatou startupu je nekonvenčné myslenie, tvorivosť a originalita**.** Startupy aplikujú neznáme a inovatívne podnikateľské modely s cieľom narušiť existujúce trhy, pričom nevedia s istotou povedať, ako zákazníci zareagujú na nový produkt alebo službu. Je to zväčša vodca, ktorý v začiatkoch podnikania startupu formuluje originálnu víziu a komunikuje ju spolupracovníkom. Potvrdzuje to líder startupu, ktorý je poskytovateľom webhostingových služieb: „Spočiatku som sa bál víziu povedať nahlas, lebo by bolo hanbou, ak by sme zlyhali a nedokázali to. Efekt bol však úplne opačný. Celá firma sa toho chytila, ľudia vedeli, čo je cieľom a všetky otázky a rozhodnutia sme riešili z pohľadu, či nás to k cieľu priblíži alebo oddiali. Nemusel som ich poháňať, sami aktívne riešili dosiahnutie spoločného cieľa.“ Tieto zistenia spojené s vizionárstvom a originálnym podnikateľským nápadom potvrdzujú domnienku, že správanie zakladateľov ovplyvňuje vývoj a dlhodobú udržateľnosť startupu vo väčšej miere než v zabehnutých, tradičných podnikoch.
Schopnosť vodcu povzbudzovať ostatných členov tímu v prípade problémov, komplikácií a neúspechu je významná najmä kvôli neistote, resp. neistej budúcnosti, ktorá sa viaže k tomuto druhu podnikania. So startupmi sa spája nepredvídateľnosť, ktorá je daná extrémnou neistotou, rizikovým investovaním a obavami o existenciu, ktoré sú spôsobené neistými tržbami a ziskom. Startup dodáva nový produkt alebo službu, o ktorej nemožno s istotou prehlásiť, ako na ňu trh a investori zareagujú. Neistota vnútri začínajúceho podniku je spôsobená krátkou podnikovou tradíciou, chýbajúcimi skúsenosťami a nízkou úrovňou rozvinutia rutín a procesov. Neistota sa však spája aj s vonkajším prostredím, v ktorom startup pôsobí a je daná predovšetkým špecifickými podmienkami prostredia, zložitosťou a dynamickou trhu. Podľa zakladateľa startupu, ktorý sa venuje vývoju online webových a mobilných hier, ak má startup fungovať, potrebuje ľudí, ktorí majú odborné zručnosti, sú ochotní pracovať aj keď si projekt vyžaduje veľkú obeť, hoci výsledok je neistý, a dokážu byť lojálni aj keď spočiatku niekoľko pokusov nevyjde. Ľudí v tomto startupe motivujú aj podielom na jeho majetku, aby dokázali akceptovať aj malú prehru, zostali v podniku a snažili sa o jeho prežitie a prosperitu.
Relatívne najslabším parametrom vertikálneho vodcovstva u slovenských startupistov je rozvíjanie kompetentnosti svojich spolupracovníkov prostredníctvom ich ďalšieho vzdelávania, koučingu alebo mentoringu (dosiahnutá priemerná hodnota 3,78). Zakladatelia startupov teda v súčasnosti venujú najmenšiu pozornosť práve rozvíjaniu kompetentnosti svojich spolupracovníkov. Je to spôsobené tým, že väčšina skúmaných startupov sa nachádza ešte v počiatočnej fáze svojho vývoja (priemerná dĺžka existencie výskumnej vzorky startupov je 1,93 roka) v rámci ktorej lídri riešia skôr otázky existenčného charakteru (založenie startupu, rozvoj podnikateľského nápadu, vytváranie startupového tímu, globálna expanzia). Hoci v súčasnej dobe lídri rozvoju ľudského potenciálu ešte nevenujú dostatočnú pozornosť, pravdepodobne sa to zmení pri ďalšom rozvíjaní podnikania.
Vertikálne vodcovstvo je zreteľné predovšetkým v počiatočných fázach rozvoja podnikateľského nápadu (tab. 2). Reprezentuje ho zvyčajne jednotlivec s vodcovskými a vizionárskymi schopnosťami, ktorý identifikuje príležitosť na podnikanie vo vonkajšom

prostredí, formuluje víziu nového podniku, získava potrebné zdroje a ovplyvňuje investorov, partnerov, dodávateľov a zákazníkov, aby startup uspel v realizácii inovatívneho podnikateľského nápadu. V úvodných fázach podnikateľského nápadu je hnacou silou startupu nadšenie zakladateľa a jeho schopnosť inšpirovať a motivovať ostatných spolupracovníkov. Toto pôsobenie vodcu však v ďalších fázach rozvoja startupu klesá. Výskum potvrdil klesajúci význam vertikálneho vodcovstva v závislosti od rozvoja startupu v prípade vytvárania originálnej vízie. Vizionárske schopnosti sú najvýraznejšie v počiatočných fázach podnikania startupu, keď zakladateľ vytvára víziu a následne ju komunikuje ostatným členom startupového tímu. Postupne intenzita objasňovania vízie prirodzene klesá, hoci pripomínanie základného spoločného cieľa startupu je potrebné neustále.

Premenné vertikálneho vodcovstva	Fáza startupového podnikania		
	1.	2.	3.
Tvorba originálnej a atraktívnej vízie	4,38	↓	↓
Povzbudzovanie v prípade akýchkoľvek problémov	4,15	↓	↑

Tab. 2 Vývoj vybraných parametrov vertikálneho vodcovstva v priebehu skúmaných fáz

V prípade schopnosti lídra povzbudzovať ostatných členov tímu pri problémoch, komplikáciách alebo neúspechu sme v 2. fáze zaznamenali mierny pokles o jednu desatinu bodu. Avšak v 3. fáze opätovne narástol význam tejto schopnosti vodcu. Súvisí to so skutočnosťou, že startupy zväčša postupujú od neúspechu k neúspechu, snažia sa poučiť z každej prehry a zistiť, prečo nefunguje opakovateľný podnikateľský model s vysokým rastom. Väčšina startupových tímov sa musí preniesť aj ponad neúspešné projekty, ktoré ich však obohatia možno viac ako tie úspešné. Typický startup sa pri rozvíjaní svojho podnikania stretne s náročnými úlohami, napr. neznalosť odvetvia, nedostatok financií, náhle a časté odchody členov tímu a pod. Ľudia v tíme sa profilujú dlhodobo, občas ich prepadajú pochybnosti a malovernosť, a preto schopnosť zakladateľa povzbudzovať členov tímu v slepých uličkách a na pokraji zúfalstva je osudová nevyhnutnosť. Hoci literatúra venuje povzbudzovaniu lídra len okrajovú pozornosť, táto aktivita nadobúda v startupe oveľa väčší význam ako v tradičnom podniku.

5 ŠTRUKTÚRA A VÝVOJ TÍMOVÉHO VODCOVSTVA V JEDNOTLIVÝCH FÁZACH STARTUPOVÉHO PODNIKANIA

Kvalita tímového vodcovstva bola hodnotená siedmimi kritériami, ktorými sú súdržnosť, vzájomná podpora a dôvera členov tímu, úroveň deľby práce a rolí v tíme, úroveň kooperácie a tvorivosti členov tímu. Výskum ukázal, že kvalita vzťahov v startupovom tíme je daná predovšetkým súdržnosťou, vzájomnou podporou a dôverou členov tímu. Tieto aspekty tímovej práce boli ohodnotené najvyššie spomedzi kritérií tímového vodcovstva. Formálna a neformálna deľba práce a rolí v tíme získali naopak najnižšie hodnotenie.

Skúmané parametre tímového vodcovstva získali hodnotenie od 3,92 do 4,26, čo predstavuje vysokú kvalitu slovenských startupových tímov (tab. 3). Skúmané tímy preukázali vysokú mieru podpory a dôvery členov tímu v nepríjemných, nepredvídaných a krízových situáciách. Nepríjemné, nepredvídané a krízové situácie predstavuje predovšetkým nedostatok peňazí v počiatočných štádiách startupu, vyplácanie symbolických miezd členom tímu, pretože sa investuje do ďalšieho rozvoja podnikania, mimoriadne pracovné úsilie, časté odchody ľudí a obmeny tímu. Úspešný startup si niekedy vyžaduje nadľudské pracovné zaťaženie počas viacerých týždňov, ak nie mesiacov. Príkladom je startup, ktorý vyvíja softvér, sieťové riešenia a poskytuje konzultácie v IT. Nadčasy v začiatkoch podnikania nevedia členovia tímu

ani spočítať. Pracovali niekedy aj 12 hodín denne aj počas víkendov. Správanie ľudí počas krízových udalostí je však najlepším prediktorom ich budúceho správania a výkonu.

Premenné tímového vodcovstva	Fáza startupového podnikania		
	1.	2.	3.
Úroveň súdržnosti členov tímu a ich odolnosť	4,22	4,04	4,26
Vzájomná podpora a dôvera členov tímu	4,28	-*	-
Úroveň deľby rolí v tíme	3,92	-	-
Úroveň formálnej deľby práce v tíme	4,04	4,09	4,14
Úroveň kooperácie medzi členmi tímu	4,18	4,10	4,27
Úroveň tvorivosti a nekonvenčnosti členov tímu	4,17	4,17	4,20
Úroveň osobnej iniciatívy členov tímu	4,11	-	-

Tab. 3 Premenné tímového vodcovstva v závislosti od fázy startupového podnikania

Startupové tímy často tvoria dobrí priatelia, známi, spolužiaci, občas dokonca rodinní príslušníci, čo napomáha vybudovaniu výbornej podnikovej kultúry a atmosféry. Ľudia radi chodia do práce, pretože v nej majú kamarátov. Zároveň vzťahy v takýchto tímoch sú zvyčajne odolnejšie a trvácnejšie.

Vzájomná podpora členov tímu v nepredvídaných a krízových situáciách sa ukázala v startupe, ktorý poskytuje služby elektronickej pošty. Všetci piati členovia startupového tímu sa zabávali na firemnej akcii pri hraní bowlingu, keď okolo polnoci šéfovi zatelefonovali, že prestal fungoval hlavný server, a preto bola aplikácia úplne nefunkčná. Celý tím sa okamžite vrátil do práce a do skorých ranných hodín pracoval na odstránení poruchy. Vodca startupu uviedol, že nemusel nikoho prehovárať ani nútiť, všetci si uvedomili závažnosť situácie a dokázali, že k práci pristupujú zodpovedne a navzájom sa podporujú.

Súdržnosť členov startupových tímov a ich vzájomná podpora v kritických situáciách získali najvyššie priemerné hodnotenie spomedzi parametrov hodnotiacich kvalitu tímovej práce. Slovenské startupové tímy naopak získali nižšie hodnotenie týkajúce sa individuálnych charakteristík členov tímu, napr. úroveň osobnej iniciatívy a príspevku členov tímu k celkovému výsledku. Z toho vyplýva, že synergická kvalita tímu je mierne vyššia ako kvalita jeho jednotlivých členov.

Formálna deľba práce (povinností) a rolí v startupovom tíme získali najnižšie priemerné bodové hodnotenie spomedzi parametrov tímového vodcovstva. Startupové tímy pozostávajú zväčša z veľmi všestranných jednotlivcov. Zakladatelia startupu nehľadajú spolupracovníkov v bežných zamestnaniach, ale vyberajú si freelancerov (nezávislí odborníci bez stáleho pracovného úväzku), ktorí už majú skúsenosti s riešením niekoľkých startupových projektov. Všestranní ľudia sú pre startup výhodní, pretože dokážu vykonávať viacero činností za jeden plat. Navyše, v prvých mesiacoch fungovania sa zloženie startupových tímov často mení, a preto startupy potrebujú univerzálnych ľudí, ktorí po odchode niektorého člena dokážu prevziať jeho prácu a úlohy.

Na začiatku fungovania startupu by si mali všetci členovia ujasniť, aké tímové roly budú zastávať, resp. si rozdeliť pracovné povinnosti podľa odbornosti, kvalifikácie, praxe alebo pracovného zaťaženia. Napríklad jeden zo zakladateľov street workout startupu opísal deľbu práce a rolí v ich tíme nasledovne: „Sme skvelý tím a navzájom sa dopĺňame. Je tu Dušky, ktorý sa stará o vnútornú organizáciu a prezentovanie nás ako firmy. Maťko má na starosti financie a ihriská a Timo sa stará o sponzorov a hľadanie nových príležitostí pre náš rozvoj. Spolu tvoríme super tím, a preto sme hneď od začiatku napredovali. Čím viac hláv, tým viac

* V 2. a 3. fáze výskumného projektu bol zúžený počet tvrdení dotazníka. Z tohto dôvodu bolo možné zmenu v čase skúmať len u vybraných premenných tímového vodcovstva.

rozumu.“ Takýto prístup je dôležitý najmä kvôli predchádzaniu konfliktom, ktoré vznikajú rozpormi spôsobenými neujasnením tímových rolí.
Rozdelenie právomocí, podielov a povinností v startupovom tíme je väčšinou náročné. Mnoho startupov má utkvelú predstavu, že každý musí mať vo firme rovnaký podiel alebo že keď niekto vymyslel produkt, tak musí byť aj riaditeľom firmy. Realita je, že všetci neprispievajú rovnako k výsledku, preto nemôžu mať rovnocenné podiely a nie každý, kto vymyslí produkt, má vždy najlepšie predpoklady byť šéfom alebo manažérom. Startupisti si musia uvedomiť, že každý prispieva do tímu rozdielne a každý člen startupového tímu je dobrý v niečom inom. Tak sa tím môže vyvarovať množstvu neskorších nedorozumení a problémov.
Príkladom je už spomínaný street workout startup, ktorý po zhruba 18 mesiacoch fungovania musel riešiť závažný problém s prerozdelením podielov. V priebehu týchto mesiacov sa ukázalo, že nie všetci členovia tímu venujú startupu rovnaké úsilie a rovnakú dávku času. Bolo preto nutné prerozdeliť podiely v startupe. Po niekoľkých diskusiách dospeli členovia tímu k novému prerozdeleniu. Z pôvodných 25 percent, ktoré mal každý člen tímu, vzniklo nové rozdelenie v pomere 35/30/25/10. Zakladateľ tento problém označil ako zatiaľ najzávažnejší v priebehu existencie daného startupu.
V protiklade k vertikálnemu vodcovstvu význam tímového vodcovstva s rozvojom startupu rastie (tab. 4). Hoci v 2. fáze skúmania sa dôležitosť niektorých premenných tímového vodcovstva nezmenila, resp. mierne poklesla, v tretej fáze sme zaznamenali zvýšenie významu všetkých skúmaných kvalít startupového tímu. Startupy na ceste za úspechom musia prekonávať množstvo rôznych prekážok. Bez súdržného a kooperujúceho tímu sa im to nepodarí. Slovenskí startupisti sa zhodli na tom, že úspech startupu závisí predovšetkým od tímu ľudí, ktorí pracujú na realizácii určitého nápadu.

Premenné tímového vodcovstva	Fáza startupového podnikania		
	1.	2.	3.
Úroveň súdržnosti členov tímu a ich odolnosť	4,22	↓	↑
Úroveň formálnej deľby práce v tíme	4,04	↑	↑
Úroveň kooperácie medzi členmi tímu	4,18	↓	↑
Úroveň tvorivosti a nekonvenčnosti členov tímu	4,17	=	↑

Tab. 4 Vývoj vybraných parametrov tímového vodcovstva v priebehu skúmaných fáz

Ak startup napreduje, je pre vodcu extrémne náročné, aby sám zvládal všetky úlohy a niesol všetku zodpovednosť, a preto sa zvyšuje význam tímového vodcovstva. Zakladateľ startupu sa musí naučiť delegovať úlohy a právomoci a nesnažiť sa robiť všetko svojpomocne. Rozdelenie rolí, povinností a zodpovednosti v startupovom tíme je nevyhnutné, ak chce byť startup dlhodobo úspešný. Zakladateľ nemôže robiť všetko, rovnako nie je racionálne, aby každý člen tímu robil všetko. Deľba rolí v tíme umožní dosahovať vyššiu produktivitu práce, pretože každý člen tímu sa sústredí na činnosti, pri vykonávaní ktorých je najlepší.

6 DISKUSIA

Výskum vertikálneho vodcovstva v startupe zistil, že zakladatelia sú schopní vytvoriť originálnu a atraktívnu víziu nového podnikania, no súčasne venujú menšiu pozornosť rozvíjaniu kompetentnosti svojich spolupracovníkov. Slovenskí startupisti sú vizionári, vedia inšpirovať, motivovať a povzbudzovať, ale nepomáhajú svojim spolupracovníkom vo forme vzdelávania, koučingu alebo mentoringu. Je to zrejme spôsobené ich nízkou manažérskou skúsenosťou či odbornosťou, ale zrejme je to aj dôsledok toho, že väčšina skúmaných startupov sa nachádza v počiatočnej fáze svojho vývoja (priemerná dĺžka existencie startupov vo výskumnej vzorke bola pri realizácii prvej fázy 1,93 roka), v ktorej zakladatelia riešia najmä otázky existenčného charakteru, napr. rozvoj podnikateľského nápadu, utváranie

startupového tímu, vstup na trh, globálna expanzia. Hoci v súčasnej dobe vodcovia rozvoju ľudského potenciálu nevenujú vysokú pozornosť, pravdepodobne sa to zmení pri ďalšom rozvíjaní podnikania.
Výskum potvrdil poznatky z literatúry o klesajúcom význame vertikálneho vodcovstva v závislosti od fáz rozvoja startupu v prípade vizionárstva. Schopnosť vytvoriť originálnu a atraktívnu víziu je dôležitá predovšetkým v počiatočných fázach existencie startupu. Význam vertikálneho vodcovstva však rastie v prípade schopnosti lídra povzbudzovať ostatných členov tímu pri problémoch, komplikáciách alebo neúspechu. Práve výdrž, neochvejné zanietenie a schopnosť vodcu pokračovať aj po neúspechu a poučiť sa z neho, nadobúda v startupoch ešte väčší význam ako v bežných podnikoch.
Kvalita vzťahov v startupovom tíme je ovplyvnená najmä súdržnosťou, vzájomnou podporou a dôverou členov tímu. Formálna a neformálna deľba práce a rolí v tíme má menší vplyv. V protiklade k vertikálnemu vodcovstvu význam tímového vodcovstva s rozvojom startupu rastie. Zakladateľ startupu sa musí naučiť delegovať úlohy a právomoci, pretože nemôže všetko robiť sám. Spoločné vodcovstvo založené na znalostiach a skúsenostiach všetkých členov tímu znamená väčšiu pravdepodobnosť úspešného podnikania.
Formálna deľba práce a rolí v startupovom tíme dosiahli najnižšiu úroveň spomedzi parametrov tímového vodcovstva. Formálna deľba práce podľa odbornosti, kvalifikácie, praxe alebo pracovného zaťaženia môže mať na výkon startupu kontraproduktívny vplyv. Striktné vymedzenie povinností a zodpovednosti neprináša v startupe pozitívny účinok ako v tradičných podnikoch. V startupoch všetci robia všetko. Vzhľadom na malý počet svojich členov startupy zvyčajne nemajú tradičnú hierarchiu a dominujú v nich horizontálne vzťahy. Prostredie začínajúcich podnikov je bez formálnych pravidiel a prísnych nadriadených, kultúra startupov je viac uvoľnená a kamarátska. Prísna deľba práce môže priniesť viac negatív ako pozitív, predovšetkým oslabuje tvorivosť a inovatívnosť.
Na druhej strane skúsenosti startupistov ukazujú, že neujasnenie pracovných povinností a rolí môže byť v budúcnosti príčinou vnútorných rozporov a konfliktov. Aj v startupoch dochádza postupne k formalizácii interných procesov a k vzniku formálnej organizačnej štruktúry, hoci táto sa v startupe vyvíja prirodzene dlhšiu dobu v porovnaní s tradičnými podnikmi. Zakladatelia startupov musia zvládať úlohy manažérskeho charakteru rovnako ako tie vodcovské, pretože podnikanie znamená aj uskutočňovanie určitých rutinných a konzistentných aktivít ako napríklad plánovanie, tvorba rozpočtov, organizovanie, riešenie denno-denných problémov alebo kontrola. Úvodné fázy rozvoja startupu vyžadujú od zakladateľov viac vodcovstva vyznačujúceho sa flexibilitou a inováciami, ďalší rozvoj si žiada udržiavanie rovnováhy medzi manažérsku a vodcovskou rolou zakladateľa.

ZÁVER

Vertikálne vodcovstvo je v startupoch zreteľné predovšetkým v počiatočných fázach rozvoja podnikateľského nápadu. Zakladatelia startupov sa prejavili ako výrazní vizionári, no menej úsilia venujú rozvíjaniu kompetentnosti svojich spolupracovníkov. V protiklade k vertikálnemu vodcovstvu význam tímového vodcovstva s rozvojom startupu rastie. Spomedzi skúmaných parametrov tímového vodcovstva sú najvýznamnejšie vzájomná podpora a dôvera členov tímu v nepríjemných, nepredvídaných a krízových situáciách. Formálna deľba práce (povinností) a rolí v startupovom tíme získali najnižšie priemerné bodové hodnotenie spomedzi parametrov tímového vodcovstva. Striktné vymedzenie povinností a zodpovednosti prináša v startupe viac negatív ako pozitív, predovšetkým oslabuje tvorivosť a inovatívnosť.
Súčasne sme zistili, že v jednom okamihu možno v startupe aj skombinovať využívanie vertikálneho a tímového vodcovstva, pričom efektivita využitia ich kombinácie závisí od konkrétnej situácie. Ostáva tak na rozumnom úsudku zakladateľa startupu, aby zvolil

v príslušnej situácii také riešenie, ktoré startup najviac priblíži k úspechu. Získané výsledky prispievajú k vzájomnej integrácii doterajších poznatkov o využívaní vertikálneho a tímového vodcovstva v startupe a rozširuje bázu poznatkov o možnostiach využitia týchto typov vodcovstva v startupe.

Použitá literatúra

1. BAUM, J. R., LOCKE, E. A., KIRKPATRICK, S. A. 1998. A longitudinal study of the relation of vision and vision communication to venture growth in entrepreneurial firms. *Journal of Applied Psychology*, 1998, s. 43–54.
2. BLANK, S., DORF, B. 2012. The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company. K & S Ranch, 2011, 608 s. ISBN 978-0984999309.
3. HAMBRICK, D. C., MASON, P. A. 1984.Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 1984, s. 193–206.
4. HARPER, M. 2016. The Top 5 Reasons Startups Fail. Dostupné na internete: https://medium.com/@mitchellharper/the-top-5-reasons-startups-fail-8ee5da9e820f#.u5b14fqyd
5. KETS DE VRIES, M. R., MILLER, D. 1986. Personality, culture, and organization. *Academy of Management Review*, 1986, s. 266–279.
6. KLOTZ, A. C. et al. 2014. New Venture Teams: A Review of the Literature and Roadmap for Future Research. In *Journal of Management.* ISSN 0149-2063, 2014, vol. 40, no.1, p. 226-255.
7. MANZ, C. C., SIMS, H. P. 1993. *Businesses without Bosses: How Self-Managing Teams Are Building High Performance Companies.* Wiley, New York, 1993.
8. PEARCE, C. L. 2004. The future of leadership: Combining vertical and shared leadership to transform knowledge work. *Academy of Management Executive*, 2004, s. 47–57.
9. PEARCE, C. L., SIMS, H. P. 2002. Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice*, 2002, s. 172–197.
10. VENDETTI, D. 2010. *Company Evolution – The Organizational Life Cycle* : working paper. Seattle : Product Arts, 2010. 6 p.
11. TIMMONS, J. A., SPINELLI, S. 2008. *New Venture Creation : Entrepreneurship for the 21st Century*. 8. ed. London : McGraw-Hill, 2008. 704 p. ISBN 9780073381558.
12. ZÄCH, S., BALDEGGER, U. 2014. Leadership in startups. Dostupné na internete: http://www.kmuhsg.ch/rencontres2014/resources/Topic_A/Rencontres_2014_Topic_A_Zaech_BALDEGGER.pdf
13. CB Insights. 2016. The Top 20 Reasons Startups fail. CB Insights. /online/ dostupné na internete: https://www.cbinsights.com/research-reports/The-20-Reasons-Startups-Fail.pdf

Kontakt

Ing. Ivana Ljudvigová, PhD.
Ekonomická univerzita v Bratislave, Fakulta podnikového manažmentu
Katedra manažmentu
Dolnozemská cesta 1/b, 852 35 Bratislava 5
e-mail: ivana.ljudvigova@euba.sk

KONTROLA AKO FUNKCIA MANAŽMENTU A JEJ ZMENY VPLYVOM KRÍZY

CONTROL AS A MANAGEMENT FUNCTION AND ITS CHANGES CAUSED BY CRISIS

Nadežda Jankelová, Martina Beňová, Zuzana Skorková

Abstrakt

Hospodársku krízu považujeme za významný faktor zmeny, ovplyvňujúci aj jednotlivé funkcie manažmentu – teda plánovanie, organizovanie, vedenie ľudí, personalistiku, kontrolu a rozhodovanie. Cieľom nášho príspevku je skúmať vplyv krízy na jednu z týchto funkcií a to na kontrolu v manažmente podniku. Kontrolu, v zmysle funkcie manažmentu, chápeme ako nepretržite prebiehajúci proces navrhovania štandardov, merania výkonu, jeho porovnávania so štandardom a vykonávania nápravných opatrení za účelom plnenia podnikových cieľov. Výskum bol realizovaný na vzorke 115 domácich a zahraničných podnikov pôsobiacich na Slovensku. Výsledky potvrdili, že v čase krízy podniky zintenzívňujú svoju pozornosť na finančnú kontrolu a naopak klesá kontrola výkonnosti zamestnancov podniku.

Kľúčové slová: *kontrola, funkcie manažmentu, kríza, Slovensko*

Abstract

Economic crisis is considered to be a significant factor of change; affecting also all individual management functions namely – planning, organizing, leadership, human resources management, control and decision-making. The aim of our paper is to investigate the impact of the crisis on one of these functions – the control in business management. Control as a management function is an ongoing process of designing standards, measuring performance, comparing the performance with the standard and implementing corrective actions to meet corporate goals. The research was carried out on a sample of 115 domestic and foreign companies operating in Slovakia. Our research confirmed that in times of crisis the companies step up their attention to financial control and on the other hand the control of the employees´ performance is decreasing.

Key words: *crisis, management functions, control, Slovakia*

1 ÚVOD

Teória a prax v súčasnej dobe vychádza z rokmi prevereného a všeobecne využívaného systémového rámca, ktorý štruktúru manažmentu člení do niekoľkých základných funkcií. V teórii moderného manažmentu sa stále využíva členenie na nasledovné funkcie: plánovanie, organizovanie, rozhodovanie, personalistika, vedenie a kontrola. Toto základné alebo podrobné členenie je veľmi užitočné, pretože ponúka pevnú štruktúru, do ktorej môžu byť nové poznatky jednoducho začlenené. Obsah funkcií sa neustále vyvíja a reaguje na meniace sa podmienky vonkajšieho prostredia. Jednou z nich je aj kríza, ktorá je istým medzníkom, náhlym prerušením dovtedajšieho fungovania podniku.

Hospodárska kríza, recesia, stagnácia, pokles - to sú pojmy, ktoré sú v masovo-komunikačných prostriedkoch stále diskutované a rozoberané, a zároveň vyvolávajú u prijímateľov úvahy, resp. obavy nad budúcnosťou. (Zuzčák and Štofková, 2010) Hospodárska kríza priviedla nemalé množstvo podnikov do krízových situácií, v dôsledku ktorých museli

riešiť svoje zásadné či existenčné zmeny v doterajšom fungovaní. Uskutočnené zmeny možno spozorovať aj vo funkciách manažmentu.
Mylná predstava o prekonaní hospodárskej krízy nespočíva len v znížení nákladov, zvyšovaní efektivity a produktivity podniku. Ako tvrdí Burger (2009) je potrebné orientovať sa na budúcnosť, lepšie odhadovať situácie, nezotrvať v „stratégii čakania na pominutie krízy“, predvídavejšie plánovať, efektívnejšie a cielenejšie rozhodovať, poskytovať motivujúcejšie podnety zamestnancom, presvedčivejšie ovplyvňovať postoje podriadených, zmeniť/prispôsobiť spôsob riadenia podniku v dlhodobom horizonte, aplikovať nové metódy manažmentu, ktoré si vyžadujú rozmanité formy nadobúdania poznatkov, vzdelávacích aktivít a pod.
Okrem negatívnych dôsledkov prináša hospodárska kríza aj nové výzvy, impulzy, potrebu nových riešení a zmeny v samotných funkciách. Literatúra ponúka množstvo analýz a hodnotení dôsledkov globálnej hospodárskej krízy na rôzne makroekonomické ukazovatele. Avšak len vo veľmi obmedzenom rozsahu sa tieto štúdie venovali otázkam týkajúcim sa vplyvov na proces manažmentu. Predmetná problematika v našich podmienkach značne absentuje. V dôsledku toho vzniká výskumná medzera, na ktorú sme sa v našom výskume zamerali. Predkladaný článok za zaoberá kontrolou a jej zmenami spôsobenými krízou. Venujeme sa zmenám v oblasti a nástrojoch kontroly.

1.1 Prehľad skúmanej problematiky v literatúre

Všeobecne sa tvrdí, že za vznik hospodárskej krízy môžu čiastočne zlyhané kontrolné mechanizmy. Dôvody možno nachádzať v nesprávne alebo nedôsledne vedených a kontrolovaných účtovných dokladoch podnikov a z nich odvodených finančných operácií. (Sahlman, 2010) Na etické dilemy a problémy s kontrolou upozorňuje vo svojom diele Záležáková (2011). Hospodárska kríza odkryla podvody, ktoré by sa v dobe hospodárskeho rastu možno podarilo utajiť. Aktuálne sa kladie zvýšený dôraz na monitoring podnikových operácií. Poradenská spoločnosť Ernst & Young uskutočnila prieskum zameraný na podvody v podnikoch v krízovom období. Z výsledkov prieskum je zrejmé, že iba 24 % respondentov si myslí, že ich nadriadení vždy konajú poctivo. (napríklad len 13 % českých alebo 12 % francúzskych a talianskych zamestnancov). Na Slovensku verí v čestnosť manažmentu až 66 % respondentov a iba 3 % slovenských respondentov sú pevne presvedčení, že by ich manažment bol ochotný urobiť etické ústupky, aby v ťažkých časoch splnil vytýčené ciele. Nadpolovičná väčšina respondentov (58 %) v poslednom období posilnila boj proti hospodárskej kriminalite. Najčastejšie aplikovanými nástrojmi boli interný audit (91 %), externý audit (81 %), prísnejšie kontroly a sledovanie výdavkov a prijatie etického kódexu. (Ernst&Young, 2009)

Tabuľka 1. História interného auditu

Predmet interného auditu	**Rok**
Kontrola účtovných záznamov	1950
Hodnotenie zhody	1960
Preskúmanie postupov	1970
Vyhodnotenie kontroly	1980
Správa o systéme vnútornej kontroly	1990
Hodnotenie systému riadenia rizík	2000
Zlepšenie systému riadenia rizík	2001
Nahlásenie vykonanej činnosti	2002
Pridanie hodnoty	2003
Konsolidácia interného auditu	2004/2009
Schopnosť riadenia finančných rizík	2010/2013

Zdroj: MUNTEANUA, V. – ZAHARIAB, L. D. 2014. Current Trends in Intenal Audit. In *Procedia - Social and Behavioral Science.* ISSN 1877-0428, 2014, vol. 116, no. 4, p. 2239-2242.

S hospodárskou krízou je často spájaný interný audit. Audítorská profesia je etablovaná v našich podmienkach už dlhšie a v čase krízy zaujala v podnikoch svoje pevné miesto. Interný audit poväčšine inklinoval k účtovným problémom, avšak podľa súčasného chápania je poradným nástrojom manažérov odhaľovania rizík v podnikoch. (viď tabuľku 1) (Zaharia – Lazar – Tilea, 2014), (Munteanua – Zaharia, 2014) Funkčný a dobre implementovaný interný audit je v podnikateľskej sfére uznávaným nástrojom dosahujúcim vytýčené podnikové ciele a to najmä ak sa ciele týkajú prekonania krízového obdobia a zabezpečenia udržateľnosti sa na trhu. Na základe uskutočnených štúdií špecialisti na interný audit poukazujú na to, že v súčasnosti je interný audit na križovatke, pričom mu predpovedajú nový strategický prístup na základoch holistického manažmentu problémov manažmentu rizík. (Ernst&Young, 2009)

Medzi ďalšie aplikované nástroje v čase krízy v podnikateľskej oblasti možno zaradiť: analýzu odchýlok a optimalizácie, kde informačnou základňou je pre daný nástroj: účtovníctvo, vnútropodniková evidencia, rozpočtovníctvo a pod., Balanced Scorecard (BSC) a systémy skorého upozornenia. Oba nástroje sú úzko prepojené a navzájom sa ovplyvňujú. Koncepcia BSC je zložkou systému skorého upozornenia, ktorá zabezpečuje podporu nielen pri riadení, ale aj pri kontrole rizík v krízovom období. Primárnym cieľom systémov skorých upozornení je identifikovať potenciálne riziká, ktoré by mohli ohroziť fungovanie podniku. Koncepcia BSC má dôležitú úlohu pri realizácii hodnotovo orientovaného manažmentu rizika v podniku. (Mika, 2009) Balanced scorecards preniká do všetkých funkcií manažmentu – v oblasti manažmentu ľudských zdrojov sa objavuje termín Human Resource Scorecard, ktorého cieľom je odhaľovať príčiny vývoja kvantitatívnych ukazovateľov výkonnosti podniku, úzke miesta v procesoch riadenia ľudských zdrojov ako aj dôsledky celopodnikových rozhodnutí na perspektívnu výkonnosť podniku. (Tarišková, 2012)

Medzi inovatívne nástroje riadenia podnikov v krízovom období patrí aj controlling. V predkrízovom období plnil predovšetkým úlohy operatívneho charakteru riadenia. V krízovom období pozornosť smerovala na prijímanie strategických rozhodnutí. Z tohto dôvodu sa aj controlling, ako podpora podnikového vedenia, musí v období krízového vývoja stále intenzívnejšie zamerať na strategické otázky a poskytovanie kvalitných a včasných informácií pre strategické rozhodovanie. (Bestvinová, 2012) Krízové obdobie si vyžiadalo potrebu určitých zmien v realizovaní úloh controllingu. V predkrízovom období controlling plnil najmä operatívne úlohy v riadení, čo ilustruje tabuľka 2.

Tabuľka 2. Zoznam úloh controllingu v predkrízovom období (do r. 2007)

1.	Tvorba a kontrola plnenia podnikových plánov.
2.	Zisťovanie odchýlok skutočných výsledkov od želaných.
3.	Hľadanie dôvodov vzniku odchýlok a formulovanie nápravných opatrení.
4.	Vypracovávanie správ a analýz k dosiahnutým výsledkom.
5.	Tvorba podnikových smerníc: pre účtovníctvo, kalkulácie a rozpočtovníctvo.
6.	Implementácia „nových“ metód kalkulovania a rozpočtovania.

Zdroj: spracované podľa BESTVINOVÁ, V. 2012. Controlling ako podpora manažmentu priemyselných podnikov v období krízy. In *Promanager.* [online]. [cit. 17-11-2015]. Dostupné na internete: <http://www.promanager.sk/kontrolne-procesy/controlling-ako-podpora-manazmentu-priemyselnych-podnikov-v-obdobi-krizy>.

Controlling v pokrízovom období zaznamenáva zmenu týkajúcu sa rozsahu, dôležitosti a významu niektorých úloh, čo dokumentuje tabuľka 3.

Tabuľka 3. Controlling v pokrízovom období (od r. 2012)

1.	Dôraz na strategické plánovanie.
2.	Začleniť do systému reportingu aj nefinančné ukazovatele merania výkonnosti, napr. Balanced Scorecard.
3.	Pokračovať v implementácii a zdokonaľovaní metód kalkulovania a rozpočtovania.

Zdroj: spracované podľa BESTVINOVÁ, V. 2012. Controlling ako podpora manažmentu priemyselných podnikov v období krízy. In *Promanager*. [online]. [cit. 17-11-2015]. Dostupné na internete: <http://www.promanager.sk/kontrolne-procesy/controlling-ako-podpora-manazmentu-priemyselnych-podnikov-v-obdobi-krizy>.

Manažéri počas krízového obdobia pociťovali nedostatok informácií, resp. disponovali skreslenými či nepravdivými informáciami, pričom kontrolná oblasť nebola výnimkou. Podľa zistení sa nepravdivé alebo skreslené informácie vyskytli v rôznych formách a v rôznych informačných dokumentoch, na rôznych úrovniach riadenia. V zahraničí (USA) ako obranný mechanizmus voči dezinformáciám prijali zákon, ako eliminovať alebo minimalizovať riziko informačných útokov z externého prostredia na interné ekonomické a hlavne informačné prostredie podnikov prostredníctvom generovania skreslených či nesprávnych informácií. (Muchová, 2013) Napriek absencii správnych a potrebných informácií podniky v čase krízy intenzívnejšie venovali pozornosť finančnej kontrole, t. j. kontrole rozpočtov, finančných ukazovateľov, toku financií a tiež kontrole podnikových činností a hodnoteniu práce svojich zamestnancov.

Kontrola je podľa teoretikov a praktikov neoddeliteľnou súčasťou manažérskych aktivít na všetkých úrovniach riadenia. Pri štúdiu dostupných zdrojov sme sa nestretli s výraznými zmenami v danej funkcii, ale skôr s tvrdením, že význam kontroly neustále rastie a jej účel už nie je len pravidelná informovanosť riadiacich pracovníkov, ale najmä jej preventívny vplyv pred možnými problémami, rizikami podnikateľského prostredia. (Jacobus, 2015)

2 METODOLÓGIA

Výskum sme realizovali prostredníctvom dotazníka. Ten bol distribuovaný elektronicky v októbri 2016, pričom zber dát bol ukončený vo februári 2017. Ako metódu výberu vzorky sme zvolili pravdepodobný (náhodný) výber, a to z dôvodu, že výsledky nie sú skresľované tendenčnosťou výberu. Do skúmanej vzorky bolo zaradených 117 dotazníkov, z toho 2 nespĺňali relevantnú kompletnosť, v dôsledku toho neboli zaradené ďalej do prieskumu. Celkový počet distribuovaných dotazníkov bol 370 a návratnosť bola viac ako 31%. Cieľovým segmentom prieskumu boli domáce a zahraničné podniky podnikajúce na území Slovenskej republiky, pričom respondenti boli členovia vrcholového manažmentu, a to marketingoví a obchodní riaditelia. Na analýzu údajov sme využili jednorozmernú deskriptívnu štatistiku.

Analyzované podniky sme segmentovali do troch skupín v závislosti od toho, v akej oblasti vykonávajú svoju podnikateľskú činnosť na trhu. Z našej výskumnej vzorky boli najviac zastúpené výrobné podniky (41,70 %, resp. 48 podnikov), obchodné (38,30 %, resp. 44 podnikov) a napokon 1/5 podnikov patrila do odvetvia služieb (20 %, resp. 23 podnikov). Podrobný prehľad prináša tabuľka 4.

Tabuľka 4. Oblasť pôsobenia podnikov

Hodnotiace kritérium (oblasť pôsobenia)	Počet podnikov (v ks)	Percentuálny podiel (v %)
Výroba	48	41,70
Obchod	44	38,30
Služby	23	20,00
Celkový súčet	115	100,00

Zdroj: vlastné spracovanie.

Pre účely bližšej charakteristiky výskumnej vzorky je nevyhnutné podniky charakterizovať z hľadiska počtu zamestnancov. Na základe daného hodnotiaceho kritéria boli spomedzi všetkých podnikov najviac dominantné veľké podniky (33,90 %, resp. 39 podnikov). Naopak, najmenej bolo mikro podnikov (16,50 %, resp. 19 podnikov). Štruktúru výskumnej vzorky z hľadiska veľkosti uvádza tabuľka 5.

Tabuľka 5. Veľkosť podnikov

Typ podniku	Hodnotiace kritérium (počet zamestnancov)	Počet podnikov (v ks)	Percentuálny podiel (v %)
Mikro podnik	do 10	19	16,50
Malý podnik	10 – 49	26	22,60
Stredný podnik	50- 249	31	27,00
Veľký podnik	nad 250	39	33,90
Celkový súčet		115	100,00

Zdroj: vlastné spracovanie.

V poradí tretím hodnotiacim kritériom bola dĺžka pôsobenia podniku na trhu. Vo výskumnej vzorke prevládali podniky dlhodobo etablované. S odpoveďou (15 a viac rokov) sa stotožnilo až 67 podnikov (58,30 %), čo predstavuje viac ako polovicu všetkých zúčastnených respondentov. Ostatné výsledky v rámci hodnotiaceho kritéria sú zobrazené v tabuľke 6.

Tabuľka 6. Dĺžka pôsobenia podnikov na trhu

Hodnotiace kritérium (dĺžka pôsobenia)	Počet podnikov (v ks)	Percentuálny podiel (v %)
15 a viac rokov	67	58,30
10 – 14	27	23,50
7 – 9	13	11,30
3 – 6	4	3,50
menej ako 2 roky	4	3,50
Celkový súčet	115	100,00

Zdroj: vlastné spracovanie.

3 VÝSLEDKY VÝSKUMU

Hospodárska kríza vypukla na Slovensku v čase, keď sa naša ekonomika nachádzala na vrchole hospodárskeho cyklu. Z toho dôvodu nás zaujímalo, aký vplyv mala kríza na priebeh hospodárskeho vývoja podnikov počas sledovaných období. Hospodársky vývoj v našom ponímaní je chápaný ako kumulovaná suma obratov dosiahnutých v daných obdobiach. O priebehu stavu hospodárskeho vývoja počas sledovaných období informuje tabuľka 7.

Tabuľka 7. Hospodársky vývoj podnikov

Hodnotiace kritérium (hospodársky vývoj)	Predkrízové obdobie		Krízové obdobie		Pokrízové obdobie	
	Počet podnikov (v ks)	Podiel (v %)	Počet podnikov (v ks)	Podiel (v %)	Počet podnikov (v ks)	Podiel (v %)
Stály rast	40	34,78	9	7,82	20	17,40
Prevažoval rast	64	55,65	42	36,52	61	53,04
Stagnácia	8	6,96	45	39,14	24	20,87
Prevažovala strata	3	2,61	18	15,65	9	7,82
Trvalá strata	0	0,00	1	0,87	1	0,87
Celkový súčet	115	100,00	115	100,00	115	100,00

Zdroj: vlastné spracovanie.

Z analyzovaných podnikov nadpolovičná väčšina v predkrízovom období (do roku 2007) zhodnotila hospodárskych vývoj za prevažne rastový (55,65 %, resp. 64 podnikov). Skoro 2/5 podnikov priznalo, že v definovanom období zaznamenávali trvalý rast (34,78 %, resp. 40 podnikov), 8 podnikov stagnovalo a len 3 podniky charakterizovali hospodársky vývoj za skôr stratový. V prípade krízového obdobia (2008-2011) si možno všimnúť, že podniky začali prejavovať prvky stagnácie (45 podnikov), resp. naďalej dokumentovali rastový vývoj (42 podnikov), 18 podnikov sa dostalo do prevažnej straty a 1 respondent vykazoval v problémovom období trvalú stratu. Počas pokrízového obdobia (od roku 2012) pozorujeme vzostup počtu podnikov, ktoré zhodnotili svoj vývoj oproti predchádzajúcemu obdobiu za trvalo rastový, resp. prevažný rast. Zasiahnuté podniky sa spamätávajú z krízovej situácie pomaly. Pri porovnaní hraničných období, t. j. predkrízového a krízového, možno pozorovať nižší počet podnikov, ktoré opätovne dosahujú trvalo udržateľný rast a početnejšie zastúpenie stagnujúcich podnikov.

Vedecké články v predmetnej oblasti informujú o pozitívnom i negatívnom pôsobení krízy na podnikateľské subjekty. Viac ako polovica našich respondentov zhodnotila vplyv krízy za skôr negatívny (52,20 %, resp. 60 podnikov). Druhou najčastejšie sa vyskytujúcou odpoveďou bola, že kríza nemala žiaden vplyv na výkon ich podnikateľskej činnosti (39,10 %, resp. 45 podnikov). O pozitívnych účinkoch krízy je presvedčených len 6 podnikov a s veľmi nepriaznivým pôsobením krízy sa stotožňujú 4 podniky, čo potvrdzuje tabuľka 8.

Tabuľka 8. Vplyv hospodárskej krízy na podniky

Hodnotiace kritérium (vplyv krízy)	Počet podnikov (v ks)	Percentuálny podiel (v %)
Veľmi negatívny	4	3,50
Skôr negatívny	60	52,20
Žiaden	45	39,10
Skôr pozitívny	6	5,20
Veľmi pozitívny	0	0,00
Celkový súčet	115	100,00

Zdroj: vlastné spracovanie.

V predchádzajúcej otázke sme zistili, že výskumná vzorka najpočetnejšie charakterizovala vplyv hospodárskej krízy za skôr negatívny. Ďalej sme zisťovali vplyv krízy na jednotlivé funkcie manažmentu. Pri tomto posudzovaní podniky zaujali optimistickejšie hodnotenie.

Dosah krízy na funkcie manažmentu charakterizovali za čiastočný, resp. žiaden. O tom, ako podniky odhadli dopad hospodárskej krízy na funkcie manažmentu, informuje tabuľka 9.

Tabuľka 9: Vplyv hospodárskej krízy na funkcie manažmentu

Vplyv krízy na:	Veľmi		Stredne		Čiastočne		Vôbec		∑	
	∑	%	Počet	%	∑	%	∑	%	∑	%
Plánovanie	12	10,43	31	26,96	49	42,61	23	20,00	115	100
Organizovanie	7	6,08	31	26,96	42	36,52	35	30,44	115	100
Rozhodovanie	4	3,48	35	30,43	43	37,39	33	28,70	115	100
Personalistika	11	9,56	25	21,74	38	33,05	41	35,65	115	100
Vedenie	2	1,74	28	24,35	44	38,26	41	35,65	115	100
Kontrola	5	4,35	31	26,96	36	31,30	43	37,39	115	100

Zdroj: vlastné spracovanie.

Teoretici a praktici pripisujú vznik hospodárskej krízy čiastočnému zlyhaniu kontrolných mechanizmov. V tabuľke 10 sú spracované najpožívanejšie kontrolné nástroje a ich spokojnosť z pohľadu našich respondentov. Dali sme im na výber 6 nástrojov, o ktorých sa v poslednom období masívne diskutuje. Okrem povinného výberu nástroja mali určiť aj spokojnosť s ním na hodnotiacej škále od 1 – neúčinné do 4 – najviac účinné. V prípade, ak podniky využívali iný nástroj, mohli ho uviesť a priradiť mu hodnotenie z bodovej stupnice. Túto možnosť nevyužil žiaden z respondentov.

Tabuľka 10. Nástroje v oblasti kontroly a ich účinnosť

Nástroj	Stupeň účinnosti				∑	%
	1	2	3	4		
Monitoring podnikových operácií	7	15	43	35	100	86,96
Interný audit	6	21	34	24	85	73,91
Business Intelligence	14	25	37	9	85	73,91
Balanced Scorecard	15	22	37	10	84	73,04
Analýza odchýlok	9	18	39	14	80	69,57
Systémy skorého upozornenia	9	17	29	11	66	57,39

Zdroj: vlastné spracovanie.

Najpočetnejšie zastúpenie spomedzi nástrojov dosiahol pravidelný monitoring podnikových činností. Okrem toho, že ho využilo 100 respondentov (86,96 %), 78 podnikov ho klasifikovalo za veľmi, resp. stredne účinný nástroj. Ďalším nástrojom, ktorým podniky priradili rovnaký počet podnikov (85/115) sú Business Intelligence (BI) a interný audit. V súvislosti s posledným spomenutým sú dostupné viaceré články, ktoré popisujú, že interný audit už dávno nie je nástroj určený len na kontrolu spojenú s účtovnými nezrovnalosťami, ale predovšetkým je poradným nástrojom odhaľujúcim riziká. Užívateľmi auditu boli najmä menšie podniky z oblasti výroby. Hlavnými užívateľmi BI boli veľké obchodné podniky, dlhodobo pôsobiace na trhu. Výhody BI využívajú podniky nielen pri kontrole odhaľovania rezerv, ale tiež pri plánovaní a podpore rozhodovania. V účinnosti získal interný audit lepšie hodnotenie ako BI. Naopak, najmenej využívaným kontrolným nástrojom boli systémy upozorňujúce na potenciálne riziká. O využiteľnosti a účinnosti ostatných nástrojov informuje tabuľka 10.

Tabuľka 11. Oblasť kontroly počas sledovaných období

	Predkrízové obdobie					Krízové obdobie					Pokrízové obdobie				
	Ľudia	Financie	Činnosti	Informácie	Celkový výkon	Ľudia	Financie	Činnosti	Informácie	Celkový výkon	Ľudia	Financie	Činnosti	Informácie	Celkový výkon
Ø	21	23	18	7	30	20	26	18	7	29	20	25	18	9	28
MODE	20	20	20	0	20	20	20	20	0	20	20	20	20	10	20
MAX	60	50	30	20	60	50	50	30	20	70	50	50	40	30	80
MIN	5	5	5	0	5	10	10	5	0	10	10	10	0	0	5

Zdroj: vlastné spracovanie.

V ďalšej analýze sme sa zamerali na skúmanie oblasti kontroly, ktorej venovali respondenti najväčšiu pozornosť. Pre zistenie požadovaných výstupov mali respondenti k dispozícii 100 % za každé sledované obdobie, ktoré mali v ľubovoľnom rozsahu rozdeliť. V tabuľke 11 sú spracované výsledky z tejto analýzy.

V teoretickej časti sme sa zmienili, že podniky v čase hospodárskej krízy disponovali nedostatkom informácií potrebných na výkon svojich činností. Absenciu údajov je možné spozorovať v najnižších hodnotách prezentujúcich zameranie kontrolnej činnosti. V priemere za všetky obdobia venovali podniky informačnej kontrole len približne 8 %. Vo všetkých analyzovaných obdobiach podniky najviac kontrolovali svoju pozíciu z hľadiska efektívnosti jej fungovania. V celkovom priemere podniky danej oblasti pripisovali pozornosť približne 30 %.

V krízovom období podniky začali menej kontrolovať výkonnosť podriadených, no o to viac sústredili svoju pozornosť na finančnú kontrolu prostredníctvom podnikového účtovníctva a rozpočtovníctva. V nepriaznivom období sa podniky intenzívnejšie venovali sledovaniu stavu podnikových financií (25,65 %) a hodnoteniu celkového výkonu podniku (29,43 %). Záujem o sledovanie podnikových činností poklesol len v krízovom období, kedy daný predmet kontroly má najnižšiu dosiahnutú hodnotu (17,79 %) oproti zvyšným dvom obdobiam.

4 ZÁVER

Viacerí ekonómovia sa vyjadrili, že vznik hospodárskej krízy sa spája s nedostatočnými kontrolnými mechanizmami. Kontrola plní najmä preventívnu funkciu s dôrazom na odhalenie disfunkcií v podniku. Podľa prieskumu spoločnosti Ernst & Young bol najčastejšie používaným nástrojom na odstránenie hospodárskej kriminality práve interný (91 %) a externý audit (81 %). Respondenti v našom prieskume na odstraňovanie, resp. eliminovanie krízových javov zvolili v najpočetnejšom zastúpení pravidelný monitoring podnikových činností. Okrem početného využívania (100/115) ho manažéri ohodnotili aj za stredne účinný nástroj. Teoretické zdroje sa taktiež vyjadrili k narastajúcemu dôrazu na monitoring podnikových operácií, nakoľko manažment je v dnešných ekonomických podmienkach pod obrovským tlakom a jeho úlohou je dosahovanie maximálnych plánovaných tržieb a ziskov, čo predstavuje veľmi silný motív k páchaniu podvodov. Interný audit sa v našom prieskume umiestnil ako druhý najpoužívanejší kontrolný nástroj. Výhody daného nástroja využíva 85/115 podnikov, čo je viac ako 73 %. V dotazníkovom prieskume sme sa tiež venovali predmetu kontroly. Vzniknuté odchýlky medzi oblasťami kontroly počas sledovaných období sú minimálne. Manažéri najviac sledovali celkový výkon podniku. Zaujímali sa o

zhodnocovanie svojej pozície z hľadiska efektívnosti jej fungovania. Druhou oblasťou kontroly boli financie, ďalej zamestnanci a napokon prebiehajúce podnikové činnosti. Absencia informácií figurovala ako hlavný deficit vo viacerých funkciách manažmentu a výnimkou nebola ani kontrolná oblasť.

Príspevok je čiastkovým výstupom výskumnej úlohy VEGA.: 1/0109/17 - *"Inovatívne prístupy v manažmente a ich vplyv na konkurencieschopnosť a úspešnosť podnikov v podmienkach globalizujúcej sa ekonomiky"*.

Použitá literatúra

1. BESTVINOVÁ, V. 2012. Controlling ako podpora manažmentu priemyselných podnikov v období krízy. In *Promanager*. [online]. [cit. 17-11-2015]. Dostupné na internete: <http://www.promanager.sk/kontrolne-procesy/controlling-ako-podpora-manazmentu-priemyselnych-podnikov-v-obdobi-krizy>.
2. BURGER, I. 2009. Manažment po kríze: čo treba robiť inak? In *Manažér: časopis pre rozvoj riadiacich pracovníkov*. ISSN 1335-1729, 2009, roč. 14, č. 3, s. 22-31.
3. ERNST & YOUNG. 2009. *Podvodom sa počas krízy darí*. [online]. [cit. 11-12-2015]. Dostupné na internete: <http://www.svet-komunikacie.sk/index.php?ID=6 215>.
4. JACOBUS, D. New Paradigm of Managing Risks: Risk and Control Self - asessment. In *Agriculture and Agricultural Science Procedia*. ISSN 2210-7843, 2015, vol. 3, no. 2, p. 32-34.
5. MIKA, V. 2009. *Manažment a krízový manažment*. Žilinská univerzita : Žilina, 2009. 216 s. ISBN 978-80-554-0079-2.
6. MUCHOVÁ, M. Interný audit - nástroj v procese riadenia v čase krízy. In *Globálna hospodárska a finančná kríza - quo vadis?* : elektronický recenzovaný zborník : vedecký seminár Katedry bankovníctva a medzinárodných financií, 2013. ISBN 978-80-970244-9-9, s. 1-7.
7. MUNTEANUA, V., ZAHARIA, L. D. Current Trends in Intenal Audit. In *Procedia - Social and Behavioral Science.* ISSN 1877-0428, 2014, vol. 116, no. 4, p. 2239-2242.
8. SAHLMAN, W. A. 2010. *Management and the financial crisis*. [online]. [cit. 11-12-2015]. Dostupné na internete: <http://www.hbs.edu/faculty/Publication%20Files/10-033.pdf>.
9. TARIŠKOVÁ, N. *Balanced scorecard v riadení ľudských zdrojov*. Ekonóm, 2012. 73 s. ISBN 978-80-225-3477-2.
10. ZAHARIA, L. D., LAZAR, A., TILEA, M. D. 2014. The Role od Internal Audit Regarding the Corporate Governance and the Current Crisis. In *Procedia - Social and Behavioral Sciences*. ISSN 1877-0428, 2014, vol. 116, no. 2, p. 4819-4823.
11. ZÁLEŽÁKOVÁ, E. Etika a kontrolný proces. *Zisk : riadenie - marketing - podnikanie*. Žilina: Poradca podnikateľa, 2011, (6), 80-81. ISSN 1337-9151.
12. ZUZČÁK, P., ŠTOFKOVÁ, K. Dôsledky hospodárskej krízy na podnikateľské subjekty. In *Globalizácia a jej sociálno-ekonomické dôsledky*. Žilina : Žilinská univerzita, 2010. ISBN 1336-5878, s. 679-682.

Kontaktní údaje

doc. Ing. Nadežda Jankelová, PhD.
Ekonomická univerzita v Bratislave
Dolnozemská cesta 1, 852 35 Bratislava
Tel.: 00421 (0)2 67 29 56 43
Email: nadezda.jankelova@euba.sk

Ing. Martina Beňová, PhD.
Ekonomická univerzita v Bratislave
Dolnozemská cesta 1, 852 35 Bratislava
Tel.: 00421 (0)2 67 29 56 08
Email: martina.benova@euba.sk

Ing. Zuzana Skorková, PhD.
Ekonomická univerzita v Bratislave
Dolnozemská cesta 1, 852 35 Bratislava
Tel.: 00421 (0)2 67 29 56 08
Email: zuzana.skorkova@euba.sk

THE IMPACT OF DIGITALIZATION ON THE SUCCESS OF INTERNATIONALIZATION REFERRED TO SMALL AND MEDIUM SIZED ENTERPRISES

Ann-Kathrin Teltz

Abstract

Abstract: During the last decades, the increasing globalization of markets has fundamentally changed the economic environment for small and medium sized enterprises (SME). This fact forces SMEs to use the advantages which a foreign market entry implicates. The purpose of this research is, to figure out the challenge for SMEs to entering a foreign market in contrast to large scale enterprises (LSE) and in a further step, develop a guideline specifically for SMEs the enter foreign markets. The special advantages SMEs have regarding to LSEs and the different ways to use the so called "Industry 4.0" and the digitalization for their benefit will be investigated as well.

Key words: *Market Entry Strategies, Digitalization, Globalization, Small and Medium Sized Enterprises*

1 INTRODUCTION

According to the German Mechanical Engineering Industry Association the "Internationalization is our biggest growth driver" referred for the German economy. This statement could be transfered to many other european countries. The awareness for the importance for small and medium sized enterprises (SME) to internationalize forced through increasing globalization and changing economic environment e.g. through digitalization is given. Therefore entering a foreign market for SME is as important as for large scaled enterprises (LSE). Even though there are some exceptional examples of SMEs which have successfully adapted to these changes, most SMEs lack the internal resources needed for the entry into and development of foreign markets. The degree of SMEs acting in foreign markets is significant smaller than the number of internationalized LSEs. Structural problems specifically related to SMEs make it more complicated for them to successfully master the challenges of globalization. The awareness of market chances, the rising competitive constraints caused though international acting companies in the domestic market as well as the need to follow industrial customers to foreign market, stimulates the interest of SMEs becoming international. To have a successful internationalization process the framework conditions of the corporation, regarding to different aspects like available recourse and the degree of digitalization are crucial. Beside this, SMEs has different specifically structural problems which distinguished them from LSEs and requires other market entry modes and strategies than the one the literature keep on hand for LSEs. Beside the mentioned need to change for SME because of globalization there is a strong need to reaction because of the so-called "fourth industrial revolution" and with this the adaption to the needs of "Industry 4.0".

2 SMALL AND MEDIUM SIZED ENTERPRISES, LARGE SCALES ENTERPRISES AND THEIR IMPORTANCE FOR THE ECONOMY

There are qualitative and quantitative criteria which defined what a SME characteristic looks like in comparison to a LSE. Quantitative aspects of the term mostly relate to the size of the company. To scale this size often the turnover and the number of employees, the so-called headcount, is used. Also, the total of balance sheet could be used to classify the size of a

company. Different institution has its own approach about the demarcation the characteristics for a classification in SME. For example, the German Commercial Code has an approach about this (§267 HGB). In §267 HGB it is mentioned that two of three of the values headcount (up to 250), turnover (up to 32,12 Million Euro) and total of balance sheet (up to 16,06 Million Euro) must fit to the classification of company sizes. Any number surmounting one of the indicators define a company as a large-scale enterprise. Main characteristic of the qualitative criteria is the unity of property and management. But also, flat hierarchies, personal relationships and others regarding to the corporate environment are criteria for the qualitative perspective.

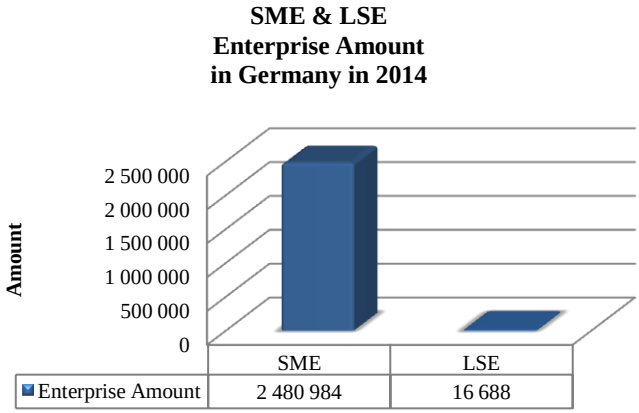


Figure 1: Amount of SME and LSE in German in 2014

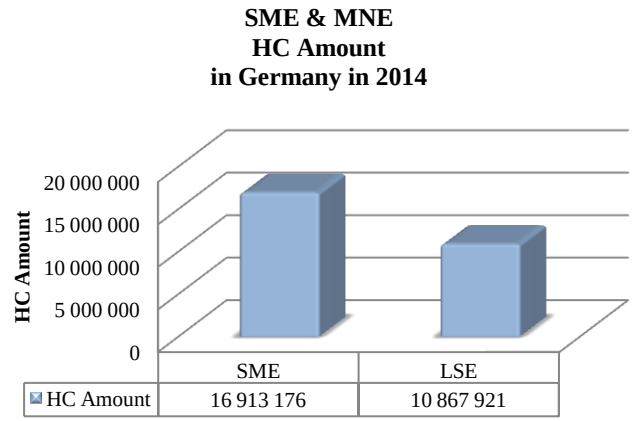


Figure 2: HC amount of SME and LSE in German in 2014

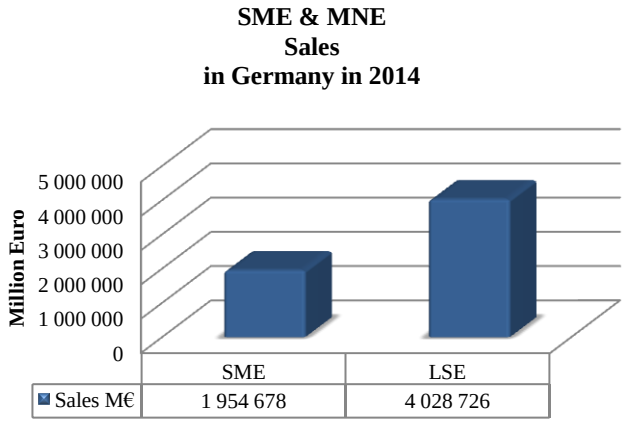


Figure 3: Sales of SME and LSE in Germany in 2014

currently, SMEs represent the majority of firms in most countries, and therefore, they play an important role in the economic growth of their representative countries. Small and medium sized enterprises are the engine of the German economy. This is illustrated by statistical data on the macro-economic significance of SMEs and by SME key indicators for Germany. The shown data are based on IfM definition of SMEs.

3 LITERATURE REVIEW

In the following there should be an overview about the success factors for entering foreign markets in general troughout existing literature. Since the mid-1970s various studies has investigated the factors for entrepreneurial success. As a very famous success factor research the so called „PIMS Program“ is known („Profit Impact of Marketing Strategies“). PIMS was the first program which tries to identify the relationship between entrepreneurial strategy and success with an empirical claim. Results from the PIMS project shown that for LSEs cross industrial sectors market attractiveness, relative competitive position, investments, costs and changes of key factors are seen as the main influencer of the Return on Investment (ROI). Building on these, Kowallik specify success factors into general, industrial sector and company specific ones. This means that on the one hand the general and the sector success factors could be used in any company, company specific success factors should be determined separately. For the entry method selection it is important to base the decision on the organization's core competencies. Regarding to Parks, this is essential to provide a competitive advantage in the new market. Derived from these findings the following success factors are related to SMEs and more in-depth the specific key factors, core competences and needs of a company.

3.1 Findings

To sum up the findings of the literature review, the three following general criteria „resources“, „ownership“ and „knowledge“ and also on the other hand the company specific citeria are investigated:

Table 1: Category of Success Factor

	Category of Success Factors				
PIMS	market attractiveness	changes of key factors	costs	investments	relative competitive position
Kowallik and Nagel	industrial sector		general	company specific ones	
	count for all companies				
Authors Category		ownership and knowledge	resources		
	digitalization				

Authors Creation

Resources

Jugdev et al. have found out, that a company has their intangible assets in order to get unique assets that could lead to competitive advantages. And according to Johnson et al. the competitive advantages for a manufacturing firm are connected with their product. Bradley argues that for a service firm it is more likely that the advantages a firm can achieve will be connected to the contact and relationship with the customer and also the focus on the process. When a company is about to enter a new market the competitive advantage can be achieved through the combination of the multiple tangible and intangible assets that a company possess. A company's competitive advantage towards the market is achieved when they are working with strategies that are effective in leveraging the company's resources.

Ownership Advantages

Agarwal and Ramaswami pointed out that ownership's advantages of a firm are key factors which are directly related to company's success when entering a foreign market. Derivate from this, Agarwal and Ramaswami say, that the choice of a foreign market entry mode should be based on trade-offs between risks and returns. Therefore, a firm is expected to choose the entry mode that offers the highest risk-adjusted return on investment. However, behavioral evidence indicates that a firm's choices may also be determined by resource availability and need for control. Resource availability refers to the financial and managerial capacity of a firm for serving a particular foreign market. Control refers to a firm's need to influence systems, methods, and decisions in that foreign market. Control is desirable to improve a firm's competitive position and maximize the returns on its assets and skills. Higher operational control results from having a greater ownership in the foreign venture. However, risks are also likely to be higher due to the assumption of responsibility for decision-making and higher commitment of resources.

Knowledge

Albertini et al. say, to succeed the internationalization process, the international business knowledge is not enough, it's also necessary to collect knowledge about the targeted country. Indeed, the environment could be very different from one country to another. Meyer distinguished the formal knowledge which could be collected directly through research or reports and the experiential knowledge which is more tacit which a company gets when the management already has experience in doing business in the target country. The tactic knowledge is the more difficult to get and with this the more important in the entry process. Regarding to SMEs often the necessary tactic knowledge to develop experiential know how is not or less existent. Galbreath sees in knowledge the key to business success, because it differs companies from each other. A similar option has Hall pointed out in his abstract "The

strategic analysis of intangible resources", where it is mentioned that beside the manager's knowledge the employee know how is one of the most durable resources that a company can possess, and an important contributor to a company's success. This statement is again approved by Grant who states that superior performance depends on the ability of firms to protect and use their knowledge assets.

4 CONCLUSIONS

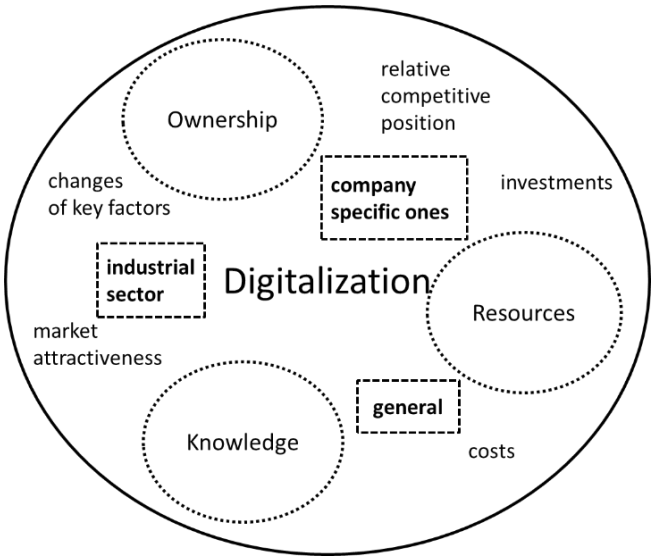


Figure 4: Sales of SME and LSE in Germany in 2014
PIMS Programm Category of Success Factors
Source: Authors creation in dependence of Grant, R. M. 1991

As shown in figure 4, the success factors mentioned in PIMS Program and the ones by Kowllik has overlaps in the different areas of success factor like "company specific ones" with "costs" or "investments". These factors also occur in the section of "general" success factors. "Changes of key factors" have possible different company specific effects regarding to the owner but also depending on the knowledge and the specific conditions in the industrial sector. The figure above tries to show these overlaps and dependences. But it also shows that the term "digitalization", covers all other success factors. It is found throughout all sectors and has its influence to all of them.

4.1 Success Factors regarding the specialties of Small and Medium Sized Enterprises

To sum up how far digitalization has an impact on the success of internationalization referred to small and medium sized enterprises, first advantages and disadvantages of SMEs regarding to LSEs should be mentioned, when it comes to entry foreign markets. Fiegenbaum and Karnani defines different advantages for SMEs like the core competence in niche markets. They say, that it is generally accepted that small firms should seek market niches. Also output flexibility is a source of competitive advantage, especially in industries facing stronger demand fluctuations, higher capital investments, and less profitability. This point is very important when a company decides to go international. Other advantages SMEs have towards LSEs when it come to the point to enter foreign markets is tht, regarding to Fiegenbaum and Karnani, SMEs could react of special customer wishes fast and flexible and with this advantage they could demarcate from big companies. The close customer loyalty is also an advantage as well as flat and simple organizational structures. But beside these advantages there are as well many disadvantages like small resource features and no optimal management

strategy. Often fewer educated and qualified employees because of the smaller possibility to pay high wages. Related to market entry decisions the bounded risk bearing ability and bounded information about target countries must be added. Regarding to Setzer the potential of capital, human resources, management and know-how mostly misses for an international market entry.

4.2 Success Factors regarding Digitalization

Influence of the degree of digitalization of a company's workflow:

1. The degree of digitalization of a company's workflow is depending on the owner's attitude regarding to administrative processes in his corporation as well as the knowledge of how to use the advantages of a digital workflow.
2. The dealing with the process to digitalize processes is a factor that occurs in the whole industrial sector, as well as in general and in a company specific view and with these has its influence on the workflow with in a company.
3. It has influence to the costs because it is an investment in a first step. Digitalization improves the competitive position and could be seen as a key factor of changing conditions.

The degree of digitalization will be decisions making for SMEs when it comes to the question of internationalization success factors and competitive advantages towards LSEs.

Sources

1. AGARWAL, S., RAMASWAMI, S. *Choice of Foreign Market Entry Mode. Impact of Ownership, Location and Internalization Factors*. 23 (1) Journal of International Business Studies. 1992. 1–27 p.
2. Albertini, F., Auffray, J., Aziz, Y. *Entry strategy for SMEs in the Russian market: Focus on challenges, entry modes and network relations*. Dissertation. Schweden: 2011.
3. ANDERSON, E., Modes of Foreign Entry. *A Transaction Cost Analysis and Propositions.* 17 (3) Journal of International Business Studies. 1986. 1-26 p.
4. BARNEY, J. *Firm Resources and Sustained Competitive Advantage.* 17 (1) Journal of Management. 1991. 99–120 p.
5. BRADLEY, F., KELLY, A., AND MEYER, R. *Using first and second stage value chain relationships to compete in international markets*. 3 (1) Multinational Business Management Symposium. 2000.
6. BUCKLEY, P. AND MARK C. *The Future of the Multinational Enterprise*. Macmillan Basingstoke. , London: 2001. 112 p.
7. CESPEDES, F. *Control vs. resources in channel design: Distribution differences in one industry.* 17 Industrial Marketing Management. 1988. 215–227 p.
8. FIEGENBAUM, A., KARNANI, A. *Output flexibility: A competitive advantage for small firms.* 12 (2) Strategic Management Journal. 1991. 101–114 p.
9. GALBREATH, J. *Which resources matter the most to firm success?: An exploratory study of resource-based theory.* 25 (9) Technovation. 2005. 979–987 p.
10. GRANT, R. M. *The resource-based theory of competitive advantage: Implications for strategy formulation.* 33 California Management Review. 1991. 114–135 p.
11. HALL, R. *The strategic analysis of intangible resources.* 13 Strategic Management Journal. 1992. 135–144 p.
12. JOHNSON, H. *The Efficiency and Welfare Implications of the International Corporation.* Internationalization Process of the MNE. 2008. 11 p.

13. JUGDEV, K., MATHUR, G., AND SHING FUNG, T. *Project management assets and their relationship with the project management capability of the firm*. 25 (6) International Journal of Project Management. 2006. 560–568 p.
14. KOWALLIK, T. *Erfolgschancen der Geschäftsmodelle von Start-ups im E-Commerce: Analyse von Erfolgsfaktoren*. Dissertation. Frankfurt: 2004.
15. LU, Y. *Industry 4.0: A survey on technologies, applications and open research issues*. 6 Journal of Industrial Information Integration. 2017. 1–10 p.
16. PARKS, T. *A Foreign Market Entry Decision Model: A Comparison of Theoretical Constructs and the Actual Practices of Multinational Enterprises*. Degree of Doctor of Philosophy. Kent: 1996.
17. SETZER, M. *Institutionelle Marktanpassung deutscher KMU an veränderte Rahmenbedingungen in der EU: Eine empirische Analyse*. Chemnitz: 2000.
18. WILLIAMSON, O.: *The Economics of Organization: The Transaction Cost Approach*. 87 (3) American Journal of Sociology. 1981. 548-577 p.
19. ZEZULKA, F., AND MARCON, P. *Industry 4.0 – An Introduction in the phenomenon.* 49 (25) IFAC-Papers On Line. 2016. 8–12 p.
20. BAMBERGER BETRIEBSWIRTSCHAFTLICHE BEITRÄGE. *http://nbn-resolving.de/urn:nbn:de:bvb:473-opus-1708*. accessed November 2017.
21. INSTITUT FÜR MITTELSTANDSFORSCHUNG BONN. *http://ifm-bonn.org, accessed.* November 2017.
22. KÁSSIO, S., AND EDUARDO, L. *"Industry 4.0 - The new industrial revolution: How Europe will succeed." https://ac.els-cdn.com/S2351978917304730.* accessed November 2017.

Contact

Ann-Kathrin Teltz, MA
University of Latvia
Raina bulvaris 19, Centra rajons, Riga, 1586, Latvia
Tel: +371 670 34444
email: a.teltz@gmx.de

MANAGEMENT SYSTEMS AND THEIR SIGNIFICANCE FOR EUROPEAN STANDARDIZATION

Marta Karkalíková

Abstract

The economic benefits of European standardization contribute to the growth of the country's economy, and provide the organizations with a tool which enables the improvement of the processes. Normalization supports market regulation and is complementary to legislation. Standards help to increase organizational efficiency through the management systems implementation, they also provide guidance for the processes optimization, improve performance and ensure the quality of products and services produced. The implementation of management system standards strengthens organization's competitiveness and it is a tool for achieving the strategic goals of the European Union. Standards ensure that the products introduced on a market meet the customer requirements. The basis for gaining a market position is the organization's ability to offer the customer something better to meet its requirements. Organizations must continually improve their products, processes, and operations and implement management systems that will provide them with a long-term competitive advantage with regards to customers in EU markets.

Keywords: *standards, normalization, European standardization, management systems, quality, ISO*

INTRODUCTION

The European Union, as an economic and political union, is striving for an internal market characterized by safe and high-quality products and services that must comply with legislative requirements specified in the regulations. Voluntary standards are effective tools that ensure the fulfillment of the regulations. At present, the role of standards focuses on declaring the consumer and market requirements in the safety and quality of products and services, defining technical parameters, ensuring product and service compatibility, and providing the organizations with guidance for their continual improvement. By implementing standards, the organizations gain competitive advantage that allows them better adaption to the conditions and requirements of the market and consumers.

The purpose of using standards is to declare the fulfilled requirements on products and services and to satisfy the customer's requirements. Standards issued by ISO - International Organization for Standardization for management systems are focused on declaring the confidence and credibility through their implementation that are necessary to maintain process variability, extend the experience from planning and regulatory, and enhancement of quality of all work processes and procedures. Benefits from applying standards exceed the organizations level and state borders, standards are used around the world. European standards have become an important tool that helps to achieve the objectives of the policies of European Union and ensure the internal market operation. The main role of established management systems is systematical approach to the streamlining of organization processes by using proven methods that help the organizations to meet predetermined goals. The main role of the established management system standards is systematically accessing the streamlining of processes going on in the organization using proven methods to help organizations more easily meet predetermined goals.

1. EUROPEAN STANDARDIZATION

European standardization is organized by national parliaments and in their interest with pursuance of national presentation and direct participation and it is based on principles recognized by the World Trade Organization in the field of standardization, namely coherence, transparency, openness, consensus, voluntary application, impartiality and efficiency. European standards are part of the European Union's internal market, which removes obstacles to trade and allows the free transportation of goods and services. Standardization means the adoption of a common, generally recognized standard, which is a document created by agreement and approved by a recognized body. Standardization does not lead to an increase in organizations´ profitability, but is still a matter of interest to the economy, as it supports competition (Trajković, A., Milošević, I., 2016). Technical standards facilitate trade because the special national regulation may not be in accordance with regulation of other countries, which may create barriers for export or import (Persson, KG, Sharp, P., 2015).

Standards are involved in disseminating innovation and ensuring the development of the European Union's internal market. They are also an important part of supporting the generation of new jobs, growth and competitiveness of the European Union. They enable to achieve the leadership in technological development and global trade. European standards are standards adopted by the European standards organizations CEN – European Committee for Standardization, CENELEC European Committee for Electrotechnical Standardization a ETSI - European Telecommunications Standards Indstitute. Although each of these organizations focuses on a different field of activity, they work together for example in the sphere of engineering or information and communication technologies. In some areas, they also apply a common policy in the case of unanimous approval and agreement (CEN & CENELEC, 2017).

European standardization organizations are focusing on the production of two types of outputs - European standards and harmonized documents. Both are generally referred to as a *standard*. The difference is in the process of their implementation. European standards must be accepted as national standards in all member states of CEN and CENELEC, in their form when issued, without any modifications and any changes. In case of harmonized documents, it is sufficient to take over the technical content of substance. It does not matter if the formal text page changes (CENELECc, 2017). If the European standard conflicts with a national standard, this national standard must be subsequently abolished (CENa, 2017). The effectiveness of European standards therefore is in their applicability to all countries that are members of CEN and CENELEC. European standards are based on a consensus that presents the social and economic interests of CENELEC member countries through National Electrotechnical Committees. Generation of most standards is initiated by industry, consumers, small and medium-sized enterprises, associations or European legislators. This ensures the wide use and benefits of standards. In addition to creating standards, CEN and CENELEC draw up directives, different reference documents,directives, such as technical specifications, technical reports and agreements form business meeting.

The requirements of directives and the development of standards, for example on energy labeling and eco-design, are key to transforming the market towards more energy-efficient devices.Consumers need to be able to purchase products, confident in the knowledge that the information on the label is accurate. Meanwhile manufacturers need to be confident that they are operating in a market where all competitors play by the rules on a level playing field (Knošková, Ľ., 2016).

Each member of the national standardization organizations is obliged to adopt all European standards as national and to make them available in the country. It must abolish all national standards that conflict with European standards. This is the way how the European standard

becomes national and is used in all CEN countries. The application of European standards is also being used by standardization bodies in other countries of the world (CENa, 2017). With a wide range of European standards influence, there is a high degree of emphasis put on standards expertise. European standards are made up of expert groups with knowledge of the specific sector they are dealing with. CEN supports normalization activities in relation to a variety of sectors including energy, construction, consumer products, defense, the environment, food, materials, services, transport, packaging and much more (CENb, 2017).
CEN also participates in creation of ISO standards. Collaboration between CEN and ISO while introducing the standards to harmonize their creation, avoiding contradictions or duplication, is ensured through the *Vienna Technical Cooperation Agreement*, which was approved in Vienna in 1991 by the board of governors CEN and the ISO board. If possible, CEN always declares the international ISO standard as a European. Subsequently, this standard is published as a national standard in all CEN member countries-
The technical conditions, specifications stated in the international standards ISO for products, services and systems ensure quality, safety, compatibility, contribute to increasing the efficiency and to the expansion of international trade. The role of ISO is to promote the development of standardization and associated activities in the world with regard to the international exchange of goods and services and the development of a concept in the intellectual, scientific, technical and economic sphere.
ISO has released more than 21500 international standards and associated documents covering almost all areas of industry so far (iso.org.).
Standardization organizations creates the standards for a wide range of products and services, but standards that enable streamlining of organizations processes are also important, for example the management systems standards issued by ISO, with the best known standard *ISO 9001 Quality Management Systems. Requirements.* The importance of management systems standards also points to the fact that they are taken over as European standards and thus extended to all CEN and CENELEC member countries.
The implementation of management systems standards in the organization is voluntary, their importance is growing. In 2016 there was more than 1 644 357 valid certificates in accordance with standard *ISO 9001 Quality management systems. Requirements*, what was increase of 7% compared to 2015 (1 520 368) and 451 415 implemented certificates in Europe in 2016. The second most common standard is standard *ISO 14001 Environmental management systems. Requirements with guidance for use* and there were 34 6189 valid certificates issued in 2016, with an increase of 8% compared to 2015 (3 191 496) and 120 595 certificates issued in Europe (ISO Survey, 2016). Although the management system standards implementation in the organization is voluntary, their importance is growing. According to these standards, many related activities must be identified and managed, for achieving organization´s effective running. Management systems specify the universal requirements for streamlining the organization's activities. Management systems are seen by the public as tools that improve the organization´s efficiency and the market legitimacy. They can generate very interesting and long-lasting effects and bring many benefits to all stakeholders. Established management systems positively affect the organization's image and are generally accepted by the market as a guarantee of organization´s control over its processes.
The European Union offers many benefits for both consumers, organizations, society and the environment, by applying standards. The objectives of the European Union's policies are being achieved and current problems are being addressed by creating the standards. For this reason, the European Commission adopts a program for European standardization every year, which is identifying the strategic priorities of European standardization.

2. IMPLEMENTATION OF MANAGEMENT SYSTEM STANDARDS IN AN ORGANIZATION

Management systems are seen by the public as tools that improve the organization efficiency and market legitimacy. They can generate very interesting and long-lasting effects and bring many benefits to all stakeholders. Organizations with established management systems better meet customer requirements, avoid mistakes, motivate and involve employees into increasing the efficiency of internal processes performance, while quality becomes the basis of their business [Albulescu, C. T. et al., 2016].

The management systems implementation in the organizations fosters competitiveness across Europe. Based on studies conducted in selected countries, it can be noted that up to one quarter of productivity increase in organizations has been attributable to an increase in the amount of management system standards implementation. This leads not only to the successful implementation and certification of management systems but also to the greater organization competitiveness.

Implementation of standards has also become an important tool for achieving the strategic objectives of the European Union, as standards contribute significantly to the realization of the internal market. The importance of technical standards is in particular in:

- are a prerequisite for the free transportation of goods and services, particularly in the European Union,
- encourage a balanced relationship between quality and costs,
- become usually binding in business contracts between the supplier and the buyer
- may be required in public contracts,
- are an effective tool of competition,
- are universally recognized on an international, regional and national scale,
- are based on the approval of the parties involved.

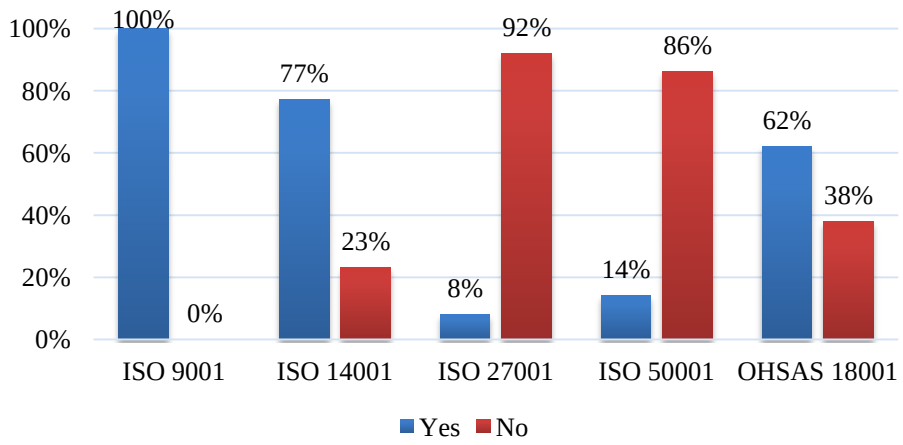
ISO standards - management systems in organizations are becoming an important tool for processes streamlining in the organization, as well as a marketing tool that enables the organization to achieve a competitive advantage. Many organizations are aware of the importance of implementing management system and of its positive impact not only on the organization but also on stakeholders. The management systems implementation in the organization ensures product quality and service, improves internal processes in companies, reduces costs and negative impacts on the environment through resource efficiency and ensuring the health and safety of employees.

Of the 450 addressed organizations, only 106 firms responded to the questions in the questionnaire, representing a return on replies about 23,5%. The purpose of the survey was to find out about which management systems the organizations have information and which management systems they have implemented. Of the 106 organizations participated in the survey, a maximum of 46 organizations (43,40%) were medium-sized enterprises, small enterprises 27 (25,47%), micro enterprises were represented by 30 firms (28,30%), and large enterprises only by three organizations (2,83%). As a result, there is an approximately equal participation of small and micro-enterprises, medium-sized enterprises formed the majority and large companies were represented by the smallest part.

The question whether organizations have information about a standard *ISO 9001 Quality management systems. Requirements.* was answered positively by 106 organizations (100%). The information about a standard *ISO 14001 Environmental management systems. Requirements with guidance for use.* was approached by 82 organizations (77%) and 24 organizations (23%) stated that they did not have any information about this standard, and did not implement it. The minimum number of organizations had information about a standard *ISO 27001 Information technology. Security techniques. Information security management systems. Requirements,* only 9 (8%) and the remaining 97 (92%) organizations did not have

any information about this standard. Regarding a standard *ISO 50001 Energy management systems. Requirements with guidance for use*, 15 companies (14%) have knowledge of this standard, with the other 91 organizations uninformed (86%). The information about a standard *OHSAS 18001* Occupational Health and Safety Management Systems. Requirements were reported by 66 organizations (62%) and 40 (38%) (Graph 1).
We focused on analysis if organizations have established management systems (Graph 2). When disseminating the questionnaire, organizations with the implemented management system were primarily approached, so a high proportion of positive responses were expected.

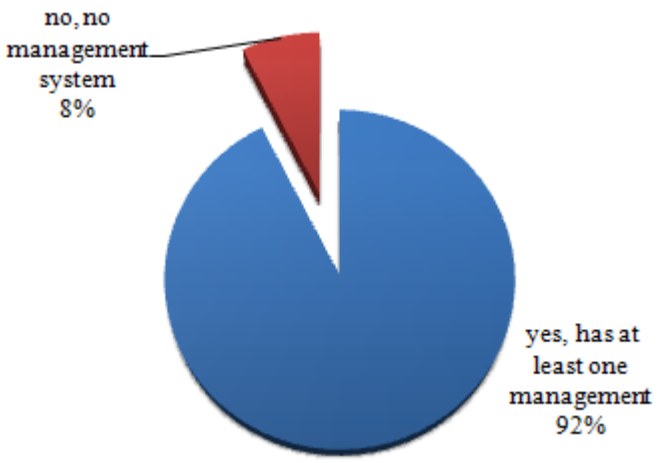
Graph 1 Standards Information



Source: Custom processing

Of the total 106 organizations that filled the questionnaire, 98 organizations (92,45%) had at least one management system implemented, and the remaining 8 firms (7,5%) had no management system in use. As the following questions were focused on the organizations with the established management system, they were only filled by those with at least one management system implemented. The number of these organizations is 98.

Graph 2 Implementation of Management Systems

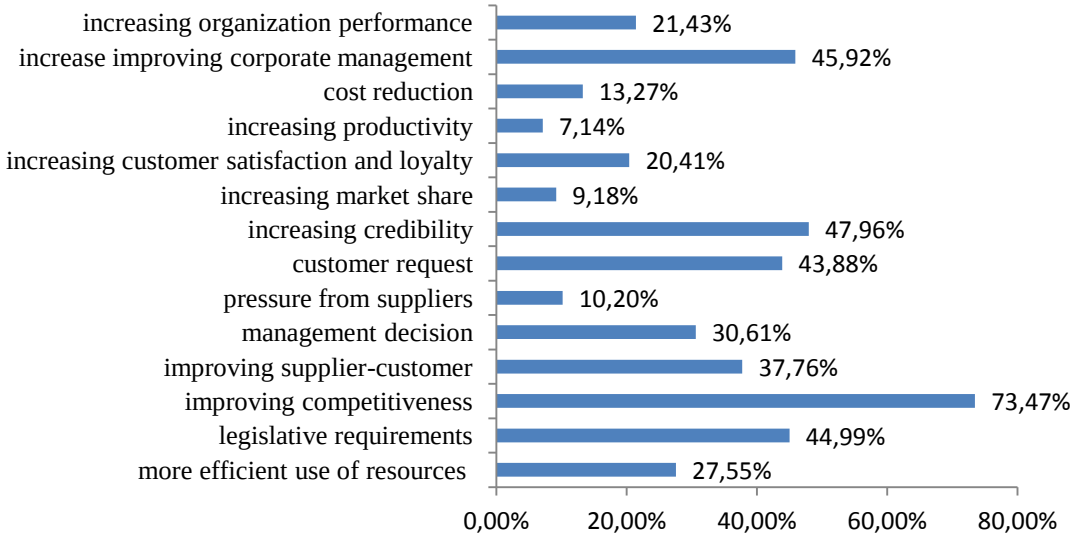


Source: Custom processing

The main reasons for the introduction of the standards in organizations (Graph 3) are improvement in the competitiveness provided by 72 organizations (73,47%), 47 organizations

(47,96%) is reporting increased confidence, improving corporate governance of 45 organizations (45,2%), compliance with legislative requirements 44 organizations (44,90%). The introduction of a standard based on customers' requirements was recorded in 43 organizations (43,88%), 37 organizations (37,76%), management decision 30 (30,61%), improved efficiency of supply-organization relations 27 organizations (27,55%). For 21 organizations (21.43%), 20 organizations (20,41%), 13 organizations (13,27%), as well as the reduction of costs, pressure on suppliers 10 organizations (10,20%), 9 organizations (9,18%), and productivity gains are among the main reasons for introducing standards for the smallest 7 organizations (7,14%).

Graph 3 Reasons for the Introduction of Standards



Source: Custom processing

The introduction of management systems in the organization leads to continuous improvement in performance, enabling more efficient management, measurement and rationalization of processes. It also creates the conditions for achieving and maintaining the required product quality level. Standards of management systems are used by organizations around the world, regardless of their size and area of activity. Using management systems, organizations declare to meet market and customer requirements. The rationale for business practices through the use of international standards and their subsequent certification have become a common part of business. Organizations are therefore recommended to introduce management systems to participate not only in achieving better outcomes within the organization and the environment but also in achieving the objectives of EU policies.

3. CONCLUSION

Through the strategic priorities of European standardization, the European Commission sets out the objectives of the growth of the European Union's economy, job creation and increasing the competitiveness of organizations. Standards of management systems in the European Union are methods for regulating the market that provides consumers with safe and quality products and services that meet legislative requirements.

The individual standards of management systems in organizations affect the quality and safety of products and services, the efficient use of energy, reduce the negative impact on the environment, eliminate the emergence of risks in the area of health protection, employee safety and protection of information. The introduction of management systems in

organizations can be seen as a tool for implementing European policies. All stakeholders - organizations, customers, stakeholders, the country in which they operate as well as the European Union - benefit from it.

Acknowledgement
The paper is an output of the project VEGA number 1/0670/16 Evaluation of integrated management systems in the context of improvement of business entities competitiveness in the Slovak Republic.

Sources

1. ALBULESCU, C. T. *Does ISO 9001 Quality Certification Influence Labor Productivity in* EU-27?. Procedia - Social and Behavioral Sciences., 2016, vol. 221, pp. 278-286 ISSN 1877-0428
2. KNOŠKOVÁ, Ľubica. *Challenges in environmental effectiveness of electrical appliances: consumer perception of environmentally-friendly products and appliance testing for energy label accuracy,* Towaroznawcze problemy jakości. - Radom : Uniwersytet technologiczno-humanistyczny im. K. Pułaskiego, 2016. no. 4, pp. 29-42. ISSN 1733-747X,
3. PERSSON, K. G., SHARP, P. *An Economic History of Europe: Knowledge, Institurtions and Growth, 600 to Present (New Approaches to Economic and Social History* ,2nd edition. Cambridge: Cambridge University Press, 2015, 285 p. ISBN 978-1-107-09556-4
4. TRAJKOVIČ, A:, MILOŠEVIČ,I. Model to determine the economic and other effects of standardisation – a case study in Serbia, Total Quality Management & Business Excellence2016. p. 1-13. ISSN: 1478-3371
5. CENa. 2017. *European standardization.* [online]. [cit. 2017-03-22]. <https://www.cen.eu/you/EuropeanStandardization/Pages/default.aspx>
6. CENELEC a. 2017. *Discovering standardization.* [online]. [cit. 2017-03-15]. <https://www.cenelec.eu/youandcenelec/perspective/index.html>
7. CEN&CENELEC. 2017. *What is a European Standard (EN)?* [online]. [cit. 2017-03-20]. <https://www.cencenelec.eu/standards/DefEN/Pages/default.aspx>
8. CENb. 2017. *CEN in figures.* [online]. [cit. 2017-03-23]. <https://www.cen.eu/about/CENinFigures/Pages/default.aspx>
9. iso.org

Contact

doc. RNDr. Marta Karkalíková, CSc.
University of Economics in Bratislava
Faculty of Commerce
Department of Commodity Science and Product Quality
Dolnozemská cesta 1/a
852 35 Bratislava
Tel: 00421 2 67291312
email: marta.karkalikova@euba.sk

DETERMINANTS AND NEGATIVE PRACTICES OF BANKS AND FINANCIAL INSTITUTIONS IN TERMS OF CSR ACTIVITY

Katarzyna Szopik-Depczyńska

Abstract

Banks and other financial institutions use the Corporate Social Responsibility (CSR) concept to build their new image, which is associated primarily with taking care of social interests and environmental protection. However, there are several conditions (determinants) of using this particular concept of business management. That is why the basic aim of the paper is to identify those crucial determinants as well as positive and negative practises of banks and financial institutions in terms of CSR activity.

Key words: *CSR, financial institutions, banks, determinants, business practises*

Introduction

Corporate social responsibility (CSR) refers to companies taking responsibility for their impact on society. The European Commission believes that CSR is important for the sustainability, competitiveness and innovation of EU enterprises and the EU economy. It brings benefits to risk management, cost savings, access to capital, customer relationships and human resource management. Companies can become socially responsible by[1]:

- following the law;
- integrating social, environmental, ethical, consumer and human rights concerns into their business strategy and operations.

Recent financial turmoil, uncertain and unstable world and increasing public pressure have put financial sector and its responsibilities under great scrutiny. This has led to putting more emphasis on social responsibility of financial institutions, primarily banks, due to a powerful and influential position they have[2].

Banks wishing to act in accordance with the idea of corporate social responsibility, which is intended to lead to their sustainable development, must undertake activities in the economic, social and environmental areas. Their detailed scope is determined by the expectations and interests of the owners of the enterprise, its employees and customers, and the society in which they operate. Banking institutions looking for areas where they could conduct social activities are interested in those, that will simultaneously serve certain social groups and determine the potential future profits of the bank.

The text presents the banking system in Poland and the concept of social responsibility implemented by financial institutions. In addition, it describes the conditions that lead to lowering and increasing the standards of social computability of financial institutions. The issue of unfair practices on the market of consumer banking services and related threats was also addressed. The purpose of the work was to show the importance of introducing the principles of bank accountability in the light of the ever-growing economy, which favors maintaining long-term relationships with clients. The text was based on the literature analysis of the subject and knowledge obtained from mass media.

[1] http://ec.europa.eu/growth/industry/corporate-social-responsibility_pl (08.12.2017)

[2] Ivanisevic Hernaus A., Stojanovic A., *DETERMINANTS OF BANK SOCIAL RESPONSIBILITY: CASE OF CROATIA*, „.E & M Economics and Management" 2015, 18(2), XVIII, 2, p. 117.

1. Negative practices of banks and financial institutions

The concept of corporate social responsibility is not new in the banking sector, but nowadays, it becomes highly topical since the crisis has significantly highlighted the need for integration of moral principles in the banking business. Knowledge of business practice indicates the fact that the acceptance of moral principles in business is not integrated into management decisions of companies. It also cannot be accepted that self-regulatory instruments of companies such as CSR will be effective. The existing experience with the implementation of CSR and ethical principles in the banking sector leads to the opinion that the social responsibility of banks and ethics in banking sector are perceived as an appropriate marketing tool for public communication and are not integrated into policies of individual commercial banks. Experience with the crisis demonstrated that there is a lack of moral principles of managers' decisions[3].

Banks and financial institutions, through their activities, should contribute to the socio-economic development of the country and increase the wealth of the society through socially responsible business, introducing innovative solutions and supporting the development of public education[4]. Is it really the case that banks always act ethically according to the banking ethics code? The examples presented below are a proof that this is not always the case, and when an institution acts immorally, it is loud in community about it. Such events are subject to severe criticism, because the victim is always a human being.

1.1 Advertising of banking products and services

Advertising is a complex phenomenon and advertising activity is a manifestation of economic activity, its type and an inseparable element of its activity. One of the advertising functions is the information function - it is one of the types of commercial statements[5]. It is used by entrepreneurs in the market to fight for buyers of their goods and services. Susceptibility to its impact makes its use often unfair to influence the demand. In the case of banking services, the clarity of the information provided and its clarity is the foundation on which the consumer will be able to define his needs and make a deliberate decision[6].

Advertising that misleads, carries the risk of harming one of the basic values of trust, which is fundamental to the financial market. An example of this may be the failure to take into account the cost of the service charge at home and the additional preparation fee in the total cost of the loan and the actual annual interest rate. The entrepreneurs' information forms, which do not include in the „costs that you will be obliged to pay in connection with the credit agreement" information required by law, also raise doubts, therefore the consumer does not know how much the loan will cost him and won't be able to reliably compare other offers.

Banks often use not the knowledge, difficult situation and naivety of consumers, they advertise their products in at least inelegant manner. The consumer who is the weaker party of the „contract" often trusts the content conveyed in the advertisement, which usually passes the reality. Banks are looking for new methods to distinguish their offer from among a multitude of other information which results in the lack of detailed information about products and the same consumer is treated as a game, which at all costs must be hunted.

Very often, the content provided in the advertisement is a starting point for the consumer, based on which he defines his needs and makes well-thought-out decisions. Advertising bank-

[3]Burianová L., Paulík J., *Corporate Social Responsibility in Commercial Banking - A Case Study from the Czech Republic*, „Journal of Competitiveness", Vol. 6, Issue 1, March 2014, pp.50-70.

[4] W. Szpringer, *Społeczna odpowiedzialność banków. Między ochroną konsumenta a osłoną socjalną*, Difin, Warszawa 2009, p. 12.

[5] E. Rutkowska-Tomaszewska, *Nieuczciwe praktyki na rynku bankowych usług konsumenckich*, Wolters Kluwer Polska Sp. Z o.o., Warszawa 2011, p. 87.

[6] Op.cit., p. 92.

ing services, in accordance with the provisions of the Banking Law, can not illegally use the words „bank" or „cash desk", which can be used only to determine the bank's activities. Unlawful use of the words indicated is an offense which is subject to a fine of up to PLN 5 million, as well as imprisonment of up to 3 years.
Another example of the use of unfair advertising is the use of credit cards by customers, encouraged by advertising in the mass media and the Internet (an advertising called „54 days without interest"). This case concerns almost every person who uses bank services. Bankers have issued 32 million bank cards up to now (credit and debit cards). Each of the 20 million savings and billing accounts has at least one payment card. And in every quarter, the value of transactions carried out with the help of „plastic money" (both shopping in stores and cash withdrawals from ATMs) reaches PLN 80 billion. Increasingly, without cards, we can not imagine life. And the more dangerous is that, in almost every card agreement with the bank, there are dangerous hooks. The most unfairly charged commissions on credit cards strike us the most. In the tariffs of fees and commissions of the Office of Competition and Consumer Protection, we can find inter alia examples of double punishment by banks to the clients who are late with repayment of the minimum, required part of the debt card. On the one hand, the bank accrues increased interest rates, and on the other hand, it immediately pays „the fee for servicing the late repayment".
There can be no doubt that the disseminated information about a free loan or interest-free period on the credit card can be misleading because it is not the transfer of all relevant information about the characteristics of products and is therefore a market practice on an abandonment basis. Personal accounts which are often advertised as free are in fact free of charge after the client has fulfilled additional conditions, e.g. monthly income for an account exceeding a certain amount, free use of ATMs - it is limited only to the selected ATM network. Free transfers can be free, but often the customer does not pay only for the first ten. The same is the issue of issuing a card, the issuing of which is free, but the client pays a fee for using it.

1.2 Violations of disclosure requirements for banks

Unfair misleading market practices may consist of acts or omissions, and should not include incomplete information or omit relevant information that may be crucial for the average consumer to sign a contract.
The Polish legislator defines this market practice that is „misleading by omission", without explaining the concept of „relevant information". It only indicates that it is information that the trader must provide to consumers on the basis of separate provisions. This concept includes information that is needed by the consumer to make an informed decision. On the other hand, misleading, the object of which is to disregard information of significant importance, refers to the moment when the decision regarding the contract is taken. A good example of the use of the above mentioned practices of misleading consumers is the provision of erroneous information regarding interest rates on loans, as well as the lack of an obligation to inform the consumer about his entitlements, eg. the right to withdraw from the contract or terminate the contract. The lack of such information leads to misleading and confusing the consumer.
Another example is the dissemination of false information, which may result in a consumer error. It is a purposeful activity whose task is to persuade the consumer to make a specific decision. Such a transfer of false information leads to misleading imagination, because it informs the product in an unreliable and untruthful manner.

1.3 Codes of good practice

The Code of Good Practice is a set of rules and in particular ethical and professional standards of entrepreneurs who have committed to comply with one or more market practices in order

to strengthen their position on the market. They constitute a kind of norm of behavior, voluntary restrictions in order to protect their own interests.
The principles of Good Banking Practice are a set of rules related to the activities of banks, relating to banks and their employees.
The Act on Counteracting Unfair Market Practices does not impose on entrepreneurs an obligation to establish a code of good practice in a given industry, it does not regulate the process of its construction or enter into self-regulation by entrepreneurs but only indicates criteria through specific prohibitions defines a legal framework for their creation[7]. Very often, in practice, entrepreneurs use the code of good practice only and exclusively as a marketing tool, used for ad hoc advertising needs, because consumers perceive such codes as quality marks, while increasing trust in the institutions. Of course, as long as they are fair, the entrepreneur has the full right to attract the consumer to his market offer.

2. Determinants of social responsibility and accountability of banks and financial institutions in Poland

The social responsibility of the computability of financial institutions in Poland is influenced by a number of determinants[8]. By determinants it is understood that they are a narrower and more practical part of the social responsibility of these institutions. Determinants of the social computability of financial institutions are determinants that lead to a specific shaping of the social model of the computability of these institutions. In this work, negative and positive determinants were distinguished. Negative determinants are those conditions that lead to lowering the social standards of the financial institutions. Positive determinants are determinants that increase the social computability of these institutions[9]. Generally, firm characteristics such as company size, industry sector, profitability, and corporate governance mechanisms predominantly appear to drive the CSR reporting agenda. Furthermore, political, social, and cultural factors influence the CSR disclosure agenda. We can find crucial differences between the determinants of CSR disclosure in developed and developing countries. In developed countries, the concerns of specific stakeholders, for example, regulators, shareholders, creditors, investors, environmentalists and the media are considered very important in disclosing CSR information. In developing countries, CSR reporting is more heavily influenced by the external forces/powerful stakeholders such as international buyers, foreign investors, international media and international regulatory bodies (e.g. the World Bank). Furthermore, in contrast to developed countries, firms in developing countries perceive relatively little pressure from the public with regards to CSR disclosure[10].

2.1 Negative determinants of social responsibility

The factors that have a negative impact on the implementation of the principles of corporate social responsibility in financial institutions (banks) can be included[11]:

- striving for wealth, disappearance of inhibiting motives;

In most people there is a factor that inhibits the pursuit of overly egoistic goals by growing the feeling that excessive egoism builds a sense of threat to the functioning of the individual in the group and in society. The disappearance of such braking motives can be noticed in the activities of financial institutions. On the example of currency options, which were forms of

[7] E. Rutkowska –Tomaszewska, *Nieuczciwe*…, op.cit. p. 174.
[8] M. Bąk, P. Kulawczuk (Red.), (Red.), *Społeczna Odpowiedzialność instytucji finansowych*, IBnDiPP, Warszawa 2009. p. 28.
[9] Ibidem.
[10] Ali W., Frynas J., Mahmood Z., *Determinants of Corporate Social Responsibility (CSR) Disclosure in developed and developing countries: A literature review*, „Corporate Social Responsibility and Environmental Management" Volume 24, Issue 4, July/August 2017, pp. 273–294.
[11] http://korporacyjnie.pl/nie-bezpieczne-opcje-walutowe-artykul-pauli-pul/- dostęp 15.04.2015.

securing the exchange rate risk, although paradoxically, the risk is their inseparable element. Option agreements, which were supposed to protect exporters from losses related to a sudden, unfavorable change in the exchange rate, in the last quarter of 2008 brought the opposite effect. A large group of entrepreneurs suffered huge losses on the options. So big, that in the extreme case (referred to company: Krosno Glassworks) decommissioning bankruptcy was announced. Sellers, driven by the desire to get high bonuses and pressure from their bosses to sell currency options, forgot to inform their customers about the risks they carry.

- unprofessional legislative practices of public authorities;

The occurrence of loopholes, the introduction of provisions with ambiguous interpretation create an „opportunity" for unethical conduct. An example would be Article 7a of the Act of 1st April 2004 - Banking Law. For timely financial operations referred to in Article 4, paragraph 1, point 7 and Article 5, paragraph 2, point 4, being the subject of agreements concluded by a bank or financial institution, the provisions on games of chance and betting are not applicable and article 413 of the act from 23rd April 1964 r. – Civil Code (Dz. U. Nr 16, position 93, with later changes). This rule means that a bank that offers reciprocal betting based on random factors, termed as financial transactions, does not have to apply for permission from the Minister of Finance to conduct such activities. Thus, this provision sanctioned the banks' right to offer gambling instruments without applying for permission from the Minister of Finance"[12].

- attitude of the National Bank of Poland as a bank standing off the beaten track of state tasks;

The National Bank of Poland (NBP) is reluctant to undertake currency intervention. As a result, this bank is on the sidelines of the main tasks of the state in terms of ensuring economic stability. The role of the National Bank of Poland is taken over by the Minister of Finance, who, through the sale of foreign currency originating from EU assistance on the currency market, affects the stabilization of the zloty exchange rate. Therefore, the exchange-value of Polish money is not stabilized by the NBP, which is constitutionally appointed, but the government, whose prerogatives do not belong to monetary policy. The NBP example acts immorally on commercial banks. Since the central bank may not be responsible for the external exchange value of Polish money, banks may be responsible only for what they consider appropriate in areas not regulated by law. A bad example goes from above[13].

- not very effective role of Good Practices and Qualification Standards for employees of financial institutions;

The above statement can be summarized briefly: if „Good Banking Practices" were implemented in Poland, we would not have mass liquidation of companies due to bankruptcy caused by investments in currency options.

- the stimulating role of some economists of financial institutions in shaping public opinion, in accordance with the interests of lobbying groups;

Financial institutions have the opportunity to influence public opinion in the assessment of the economic situation of the country and, consequently, conduct in line with this opinion. An example of this is the publication of forecasts by economists of financial institutions that will benefit from the development of forecasted economic and financial categories.

- consent to the legal aggression of some financial institutions towards their clients14;

The use of legal advantage by large financial institutions is a fact and discourages small customers from using financial services more widely. Banks are able to hire a debt collection company to collect 1 grosz of debt from the client.

[12]M.Bąk, P.Kulawczuk (Red.), op.cit., p.26.
[13] Op.cit., p.28.
[14] M.Bąk, P.Kulawczuk (Red.), op.cit., p.21.

2.2 Positive determinants of social responsibility

We can include the factors that have a positive impact on the implementation of CSR principles in financial institutions (banks)[15]:

- high standards of integrity created by the Polish educational system, family environment and religion.

One of the first major determinants of the responsibility of financial institutions in Poland is the functioning of an educational system, based on a high degree of school, family and the Church. A young employee of a bank or insurance company comes to work shaped by positive models based on honesty, truthfulness, help and involvement. Thus, the educational system effectively provide a new human capital with high moral values to the sector of financial institutions.

- reconstruction of the role of the Polish Financial Supervision Authority, as a body of state authority that really defends the interests of citizens;

The basic aim of the Polish Financial Supervision Authority (established in 2008) is related to the achievement of equal and fair treatment of small clients by large financial institutions. It was encouraged by the radical attitude of financial supervision institutions in other countries.

- the policy of corporate social responsibility of individual banks;

Polish financial institutions are more and more interested in the issues of corporate social responsibility. Banks and other financial institutions realize that CSR pays off: it allows building better ties with the society, better social communication, reduces the number of conflicts, reduces the need for legal services, reduces the costs of promotion and generates a number of other benefits. As a result, the educational, scientific and cultural sector is beginning to intensively cooperate on the part of financial institutions.

- bottom-up agreements in the field of conflict resolution;

Banks after year 2008, when they made a lot of mistakes in offering financial services, try to solve all disputes with the client in a way that any debtors do not deprive them of their ability to act.

- the ethos of reliable banking and honest financial institutions hardly built from scratch after the collapse of trust;

More and more bankers and employees of financial institutions realize that it is not good PR and advertising will decide about the return of clients' trust, but clear and transparent guarantees that customers will be able to effectively enforce. Thus, the era in which serious clients could be acquired by means of PR and the era of consistent execution and guarantee of feasibility begins.

3. Conclusions

Banks are perceived as institutions - by their very nature - oriented more on maximizing profits than on meeting needs and expectations of the recipients. The elements that increase the trust in the bank, in addition to the institutional conditions of operation (banking supervision, state treasury guarantees), which limit the potential freedom of the bank's behavior in relation to the client or unethical activities, are such factors as: flexible, individual treatment of customer needs; nice, favorable attentive and helpful service, caring about the client's interest, appreciating customer loyalty by offering services on preferential terms, bonuses, etc. Investing in activities aimed at integrating the concept of social responsibility with the bank's strategy is aimed at gaining respect by the bank, good reputation and loyalty of shareholders, employees and clients, and in the long-term - competitive advantage.

This paper illustrates how important it is to integrate the concept of social responsibility into the organization's strategy. Banks use the CSR concept to build their new image, which is

[15] Ibidem, p. 32.

associated primarily with taking care of social interests and environmental protection, and not with a heartless financial institution, guided by an individual approach to the client, while being open to its needs and problems. The philosophy in which the social good become an indispensable showcase of cooperative banking can result in the image of a friendly bank in which the client feels like at home.

Literature

1. ALI W., FRYNAS J., MAHMOOD Z., *Determinants of Corporate Social Responsibility (CSR) Disclosure in developed and developing countries: A literature review*, „Corporate Social Responsibility and Environmental Management" Volume 24, Issue 4, July/August 2017, ISSN: 1535-3966.
2. BĄK M., KULAWCZUK P., (Red.), *Społeczna Odpowiedzialność instytucji finansowych*, IBnDiPP, Warszawa 2009, ISBN: 978-83-927151-5-3.
3. BURIANOVÁ L., PAULÍK J., *Corporate Social Responsibility in Commercial Banking - A Case Study from the Czech Republic*, „Journal of Competitiveness", Vol. 6, Issue 1, March 2014, ISSN 1804-1728.
4. IVANISEVIC HERNAUS A., STOJANOVIC A., *DETERMINANTS OF BANK SOCIAL RESPONSIBILITY: CASE OF CROATIA*, „E&M Economics and Management" 2015, 18(2), XVIII, 2, ISSN 2336-5604.
5. RUTKOWSKA-TOMASZEWSKA E., *Nieuczciwe praktyki na rynku bankowych usług konsumenckich*, Wolters Kluwer Polska Sp. Z o.o., Warszawa 2011, ISBN: 978-83-264-1346-9.
6. SZPRINGER W., *Społeczna odpowiedzialność banków. Między ochroną konsumenta a osłoną socjalną*, Difin, Warszawa 2009, ISBN: 978-83-264-4697-9.
7. USTAWA Z DNIA 01.04.2004 - PRAWO BANKOWE
8. USTAWA Z DNIA 23.04.1964R. - KODEKS CYWILNY
9. http://ec.europa.eu/growth/industry/corporate-social-responsibility_pl (08.12.2017)
10. http://korporacyjnie.pl/nie-bezpieczne-opcje-walutowe-artykul-pauli-pul/ (8.12.2017).

Contact

Dr. Katarzyna Szopik-Depczynska, Ph.D.
University of Szczecin
Mickiewicza 64, Szczecin, Poland
Tel: +48 507166608
e-mail: kasiasz@wneiz.pl

CSR IN BANKS AND FINANCIAL INSTITUTIONS IN THE FACE OF GLOBALIZATION PROCESSES

Katarzyna Szopik-Depczyńska

Abstract

The purpose of the paper is to analyze the concept of the bank's social responsibility. It presents the issue of corporate social responsibility as an element of globalisation processes. The work also presents the banking system in Poland and the concept of social responsibility implemented by financial institutions. The issue of unfair practices on the banking services market and related threats was also raised. The text was based on the literature analysis of the subject and knowledge obtained from mass media.

Key words: *CSR, financial institutions, banks, globalization, business practises*

Introduction

One of the best known and most widely accepted definition of CSR is by Carroll, who says that corporate social responsibility encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organisations. The CSR distinguishes various layers of responsibilities. The foundation is economic responsibility. At the same time, however, companies also need to comply with legal norms. ethical responsibility equals the obligation to conduct in a fair way and to do the right thing, going beyond mere compliance with rules. it can also mean discretionary or philanthropic responsibility[1]. Banks wishing to act in accordance with the idea of corporate social responsibility, which is intended to lead to their sustainable development, must undertake activities in the economic, social and environmental areas. Their detailed scope is determined by the expectations and interests of the owners of the enterprise, its employees and clients, and the society in which they operate.

The purpose of the work is to analyze the concept of the bank's social responsibility. Selected topic is to show how important is the ethical dimension of this activity for building mutual trust which translates into increased loyalty and satisfaction of the bank's employees and clients. It presents the issue of corporate social responsibility as an element of modern business management, which facilitates functioning in a competitive market and at the same time increases the company's innovativeness. He also points out that contemporary trends and changes that take place in the environment will play a big role in the introduction by enterprises of the concept of corporate social responsibility. The globalization process is described briefly, which forced changes in the thinking of many entrepreneurs, whose aim is to increase competitiveness in order to include the concept of sustainable development in their strategies, striving at the same time to increase social welfare and the profitability of the enterprise. The work also presents the banking system in Poland and the concept of social responsibility implemented by financial institutions. Also included in one of the sub-chapters are conditions that lead to lowering and increasing the standards of social computability of financial institutions. The issue of unfair practices on the banking services market and related threats was also raised. The text was based on the literature analysis of the subject and knowledge obtained from mass media.

[1] A. B. Carroll, *The Pyramid of Corporate social Responsibility: toward the Moral Management of Organizational stakeholders,* „Business Horizons", 1991, July–August, p. 18.

1. Corporate social responsibility in the face of globalization

Globalization is a phenomenon that encompasses and permeates many areas of life - cultural, political and economic. In this respect, this process should be understood through „the form of mutual, most often asymmetric, impact in all spheres of social life, from international markets to culture"[2].

Along with economic changes at the beginning of the 19th century, the concept of corporate social responsibility was born, when large industrial concerns began to emerge. Economic growth and maximization of profit as a goal has been the source of all economic and social progress as well as opportunities to increase social well-being[3]. However, in the era of globalization the world has faced many challenges in the face of such threats as: depletion of natural resources, global warming, natural disasters, problems with access to drinking water, deepening social inequalities due to unequal distribution of income, emerging new diseases and many other. Globalization is a process that affects many aspects of life. In this respect, it is important to assess the effects of globalization on individual spheres. This evaluation in the subject literature is varied, but one uniform division can be noticed. The negative and positive effects of globalization are distinguished[4].

The positive effects of this process include, among others:

- increase in productivity,
- improving the quality of life in the world,
- unification of the market,
- increased range of goods and services,
- better access to information and technology capital,
- raising general well-being,
- unification of cultures, religions, policies, economies.

Negative effects of globalization visible outside the organization are environmental pollution and excessive use of natural resources by large enterprises. In this respect, corporate social responsibility began to be seen as a tool to defend against the negative effects of globalization. Therefore, it should be assumed that CSR in the field of ecology is expressed with concern for providing products or services that are safe for consumers and the environment, as well as for usability. The next group of negative effects of globalization are the results felt within companies, which include personal conflicts that appear in the company. Their cause of disputes is often the desire to maintain employment or the desire to advance in the conditions of increased competition. Clash with such negative results of the globalization process is possible by implementing in the company the principles of positive psychology. It is accepted that the employees of companies that have these principles in their strategies show greater commitment, loyalty, flexibility of work, respond better to criticism, accept all the remarks do not strive for conflicts.

The trend that is undoubtedly the result of globalization is consumerism. Corporate social responsibility in this area is a tool for defending against such phenomena. The answer to this problem is the consumer's awareness that he already has enough of the product. Social campaigns are the tool to combat this process. As an example, you can enter the "Buy Responsibly" campaign[5].

---

[2] K. A. Kłosiński, A. Masłowski, *Globalizacja sektora usług w Polsce*, PWE, Warszawa 2005, p. 17

[3] A.Paliwoda-Matiolańska, *Odpowiedzialność społeczna w procesie zarządzania przedsiębiorstwem*, Wydawnictwo C.H. Beck, Warszawa 2009, p. 13

[4] K.A. Kłosiński, A. Masłowski, op. cit., p.17

[5] K.Szopik-Depczyńska, *Społeczna odpowiedzialność biznesu (CSR) w aspekcie wyzwań globalizacyjnych i zrównoważonego rozwoju*, Odpowiedzialność podmiotów na rynku, red. B. Czerniachowicz, A. Wieczorek-Szymańska, K. Kazojć, Zapol, Szczecin 2016, pp. 9-16.

In summary, two levels of negative effects of globalization can be distinguished. These are factors that are felt inside the organization and outside. The important thing is that in both planes the role of CSR has been noticed in terms of leveling the degree of feeling the results of this process and defending against them. Corporate social responsibility plays a special role in the effective use of resources, reducing waste and pollution, and designing environment-friendly products and production processes[6].

All this indicates that the crisis of growth is becoming a feature of the modern economy, which is visible in numerous ecological threats and social costs, such as unemployment. It's human activity, including enterprises, brings our world to the limits of growth. The business world has so far realized its basic mission, which is profit. Nowadays, not only CSR and sustainable development are discussed more broadly, but also broadly understood "social responsibility" not only in the context of enterprises, but also in the functioning of entire economies. There has been a change in social values, which indicates the emergence of a different, more responsible way of thinking about how a modern enterprise should function. Economic organizations can not be treated in a special way in relation to other social groups in drawing on natural capital and human capital without giving the public anything in return. Economic entities cease to be treated only as instruments to achieve economic goals, they are now also evaluated in social and moral categories, and at the same time they become co-responsible for the development of society.

This is difficult to implement not only because of the lack of a clear definition of corporate social responsibility and the voluntary adherence to currently recognized guidelines. The differences in the level of economic development also have a huge impact, which is associated with higher or lower social awareness.

2. Social responsibility of banks and financial institutions

2.1 Polish banking sector

The banking system is the whole of banking and financial institutions as well as norms that define their mutual relations and relations with the environment. The establishment of a system composed of the central bank (issuing bank) and commercial banks is considered the basis for determining the banking system. The banking system is also the number and type of banks operating in a given country, creating a logical and compact whole. The banking system consists of the following elements[7]:

- central bank,
- operational banks - commercial banks, deposit and credit,
- special banks - investment, mortgage, agricultural and land improvement banks, communal and credit companies,
- savings banks,
- credit cooperative.

The following elements of the banking system exist in Poland:

- The National Bank of Poland, which is the central bank,
- Polish Financial Supervision Authority,
- Banking Indemnity Fund,
- the banking sector comprising commercial banks and cooperative banks.

The NBP is the central bank of the Republic of Poland. It fulfils the tasks set out in the Constitution of the Republic of Poland, the Act on the National Bank of Poland and the

[6] K.A. Kłosiński, A. Masłowski, *Globalizacja* …, op. cit., p. 19

[7] *Bankowość dla praktyków. Europejski Certyfikat Bankowca EFCB,* ed. by M. Klimontowicz, Warszawa, 2017, p. 10.

Banking Act. These legal acts guarantee the independence of the NBP from other state authorities. The NBP has three basic functions: an issuing bank, a bank of banks and a central bank of the state. The bodies of the National Bank of Poland are: the president of the NBP, the Monetary Policy Council and the NBP board. The basic task of the NBP is to maintain a stable price level. In accordance with the Monetary Policy Strategy developed by the Monetary Policy Council after 2003, the NBP's objective is to stabilize inflation at 2.5% with an acceptable fluctuation band +/- 1 percentage point. The National Bank of Poland is responsible for the stability of national currency. In fulfilling this constitutional obligation, the NBP develops and implements the monetary policy strategy and - adopted annually - monetary policy assumptions.

Through the management of foreign exchange reserves, it ensures an appropriate level of financial security of the state. Thanks to the issuance of currency signs, it secures the liquidity of cash transactions. An important goal of the NBP is to care for the stability of the financial system. As part of its supervisory and regulatory functions, the NBP cares for the liquidity, efficiency and security of the payment system. It also contributes to the development of a secure financial market infrastructure[8].

The Polish Financial Supervision Authority supervises the banking sector, the capital market, insurance and pension market, supervision over payment institutions, payment service offices, electronic money institutions and the co-operative box sector.[9]

The Commission's tasks also include[10]:

- undertaking actions for the proper functioning of the financial market,
- undertaking activities aimed at developing the financial market and its competitiveness,
- undertaking information activities regarding the functioning of the financial market,
- participation in the preparation of draft legal acts in the field of supervision over the financial market,
- creating possibilities for amicable and conciliatory settlement of disputes between participants of the financial market, in particular disputes arising from contractual relations between entities subject to the Commission's supervision and recipients of services provided by these entities.

Another very important element of the banking system in Poland is the Bank Guarantee Fund (BFG) - an institution guaranteeing deposits of Polish banks. It also implements assistance activities in relation to bank institutions threatened with bankruptcy. It was established under the Bank Guarantee Fund Act of 14 December 1994. This compact system, consisting of many elements that interact with each other, between which there are various interactions, fulfils many important functions. These functions are[11]:

- broadcasting and regulatory - it is performed by the central bank by issuing and regulating the money supply,
- deposit and credit - it is revealed in commercial banks through the mechanism of creating deposits and transforming them into loans and credits,
- billing - the bank makes cash settlements on behalf of clients (charges one account and recognizes the other),
- allocation - it enables the flow of funds from less to more effective areas of economy and business entities,

[8] http://www.nbp.pl/home.aspx?f=/o_nbp/o_nbp.html (12.12.2017).
[9] http://www.knf.gov.pl/o_nas/komisja/index.html (12.12.2017).
[10] http://www.knf.gov.pl/o_nas/komisja/index.html (12.12.2017).
[11] http://pl.wikipedia.org/wiki/Bankowy_Fundusz_Gwarancyjny (12.12.2017)

- financial and consulting - the bank secures the interests of its clients by advisory services,
- stimulus - the bank as a donor of capital affects the development of local entrepreneurship.

2.2 The essence of social responsibility of banks and financial institutions

Considerations on the social responsibility of financial institutions can begin with presenting what social corporate responsibility is. Responsible business is a voluntary strategy that takes into account social, ethical and ecological aspects in business operations and in contacts with stakeholders (including employees, clients, shareholders, suppliers, local community). It is the business contribution to the implementation of the policy of sustainable economic development and the way of running a company where the priority is to achieve a balance between its effectiveness and profitability and social interest[12].

Banks, apart from the central bank, are normal enterprises oriented at bringing profits to their owners[13]. The essence of the banks' activity consists in providing numerous and various financial services, both to individuals and companies, consisting in securing and transferring financial resources. Banks allow to multiply incomes to their depositaries and economic activity to their borrowers, thus they are intermediaries between holders of free financial resources and entities reporting their needs[14].

UK & US Global Fortune 500 companies spend $15.2bn a year on CSR activities. In the wake of the global credit crisis, the banking industry has faced intensified regulatory pressures and public scrutiny. The record level of regulatory fines and penalties as a result of banking malpractice has presented banks with the challenge of needing to restore public trust and establish clear and transparent business models. As a result, many top banks have begun to integrate CSR factors within their long-term investment strategy. This has served as a foundation not only for developing new products and new growth opportunities, but has also ensured better management of risk in the banks' overall investment strategies[15].

Since the banking sector differs from other economic sectors, its CSR practices are also different. Here there is more emphasis on responsibility in the areas of bank lending, investment and asset management operations, where combating bribery and money laundering are particularly important issues, being the key elements of anti- corruption efforts, which is a crucial part of the banks' CSR activities[16].

Although banks have smaller direct impact on the environment, their indirect environ-
mental and social responsibility may increase if they grant credit to companies which pol- lute the environment, produce unsafe products or violate human rights[17]. is way banks act as mediators of sorts, which may cause significant damages[18]. The indirect impact may arise not only in relation to the users of banking services, but also the suppliers. As the management

[12] http://odpowiedzialnybiznes.pl/pl/baza-wiedzy.html (12.12.2017)

[13] *Uczciwość w świecie finansów*, ed. by W. Gasparski, Wyższa Szkoła przedsiębiorczości i Zarządzania im. Leona Koźmińskiego, Warszawa 2004, p. 38.

[14] Ibidem., p. 38.

[15] http://en.finance.sia-partners.com/corporate-social-responsibility-csr-sustainability-within-banking (12.12.2017)

[16] F. Viganò, D. Nicolai, *CSR in the European Banking sector: evidence from a survey* [in:] ed. by Barth, R. Wol , F., *Corporate social Responsibility in Europe: Rhetoric and Realities*, Edward elgar Publishing Inc. 2009.

[17] *Professionals' Perspectives of Corporate social Responsibility*, ed. by S. O. Idowu, W. L. Filho, Cspringer – Verlag, Berlin–Heidelberg, 2009, DOI 10.1007/978–3–642–02630–0_8.

[18] P. Thompson, C. J. Cowton, *Bringing the environment into Bank Lending: implications for environmental Reporting,* „British Accounting Review", 2004, no. 36, pp. 197–218 .

element of the responsible supplier chain, integrating environmental and social aspects into supplier policies has been adopted to finances as well[19].
The social responsibility of banks is related to their access to their clients' funds, confidential information about products, personal data and access to the entire life of a given client. At the same time, financial products are so complex that the bank's clients are doomed to trust the bank's employees, counting that they act in their interest and that they provide them with services at the highest level[20]. The global economic crisis has highlighted the importance of the social responsibility of financial institutions, including banks. It was the lack of this responsibility that led to the financial crisis in the world. Failure to observe the principles of corporate social responsibility, as well as business ethics and activities not regulated by law, certainly led to negative crisis phenomena. It can be concluded that the main reason for the financial crisis in the world was the lack of an elementary human characteristic - responsibility, which also led to the lack of responsibility for their actions to the public[21].
Part of the social responsibility of financial institutions is the social accountability of these institutions, cleared of PR and philanthropy, focused on the core activity of these institutions and its impact on the environment, including social. The social computability of financial institutions is the absolute minimum to which they are required, it is an element of their management system towards key stakeholders[22].
Community involvement is the basis of all accomplished CSR policy initiatives and extends far beyond the standard charitable measures. Banks would normally introduce innovative CSR schemes such as[23]:

- permanent learning programmes for disadvantaged sectors of society;
- sponsorship of young entrepreneurs;
- provision of academic scholarships and research proposals;
- support environmental issues such as recycling and waste management;
- community support programmes;
- health support programmes;
- financial support for arts and culture.

It is essential that there should be a transparent and strong commitment to adoption of CSR practices. This can be accomplished through explicit reference to CSR activities adopted by banks by dedicating sections of Annual Reports to CSR matters or by publishing Sustainability Reports and/or policy statements on CSR.

2.3 Threats on the retail banking market in Poland

Economic growth and development are linked to the security of financial institutions and their clients. The ethical dimension of this activity is important for building mutual trust. In the case of cooperation with banks, you can think about opportunities and threats to consumer interests that are ethical problems in the context of such values as honesty and justice[24].
In Poland, the trend towards consumer welfare on the financial services market is becoming more and more visible, attaching ever greater attention to consumer protection and equalizing

[19]C. Lentner., K. Szegedi, T. Tatay , *Corporate Social Responsibility in the Banking Sector*, „Public Finance Quarterly", 2015, no.1, p. 95-103.
[20]http://zbp.pl/public/repozytorium/dla_bankow/prawo/komisja_etyki_bankowej/etyka.pdf- (12.12.2017)
[21]*Społeczna Odpowiedzialność instytucji finansowych,* ed. by M. Bąk, P. Kulawczuk, IBnDiPP, Warszawa 2009, p. 20.
[22] W. Meng-Wen, S. Chung-Hua, *Corporate social responsibility in the banking industry: Motives and financial performance*, „Journal of Banking & Finance",Vol. 37, Issue 9, September 2013, pp. 3529-3547.
[23] https://dailynewsegypt.com/2016/02/22/corporate-social-responsibility-in-banks/ (12.12.2017)
[24] I. Czechowska, *Etyka działalności bankowo-ubezpieczeniowego usługodawcy*, Etyka w życiu gospodarczym, Salezjańska Wyższa Szkoła Ekonomii i Zarządzania, Łódź 2009, tom 12, nr 1, pp.153-160.

the disproportion of market power between it and a professional service provider, as the consumer is the weaker party in these contacts.
The justification for the purposefulness of consumer protection of banking services is connected not only to its weaker position, but also due to the characteristics of service providers that are public trust institutions operating in a high-risk area with a low share of equity that rely on entrusted funds and are prone to negative panic effects, besides accumulating savings that form the basis of economic development. Therefore, the image that is the expression of the quality of services provided by clients is important for the stability of these institutions.
By characterizing the demand side of banking services, it can be seen that they are usually addressed to a mass retail customer. The mass client enforces standardization and unification of contracts, which makes it impossible to negotiate. The consumer can only give it up. The mass customer has practically no right to make changes to the contract. Comparing service prices is easier for the client than comparing used contracts and regulations. As a rule, standard document templates are offered for each product, which include: application for opening an account or granting a loan, regulations and price list. These are obligatory patterns and the client has no right to make changes in the situation when he does not accept certain conditions and wishes for a separate solution. Service providers often seek to transfer many risks to the customer in the form of binding agreements and regulations, using his ignorance, because there is no threat that a lost, dissatisfied customer can not replace another.
The most serious threats to the rights of consumers of banking services, according to the authors of the report prepared by the Market Research Institute for Market Guides, are connected with the validity for each product of standard print patterns: application for commissioning, regulations and price list. Usually the contract is very short, and the duties and rights are transferred to regulations, often containing several pages in dozens of paragraphs, unclear formulations, and the most important information is placed in links, written in small print. Often the regulations do not include costs, in which case clients are sent back to the illegible price list. In addition, signing applications and contracts is carried out under the pressure of nervous customers waiting in the queue. The employee representing the bank is interested in the sale and presents only the values of the product, but does not inform about the risk or additional costs. It does not give customers time to read the regulations and does not explain its intricate and complex content[25].
Another threat identified in the report of the Office of Competition and Consumer Protection is the delayed reaction of banks to lowering NBP interest rates - it is treated as discrimination against customers. In the case of lowering interest rates by the Monetary Policy Council, interest rate cuts on deposits in commercial banks are deeper, while loans are considerably shallower. Significant, if we verify the above thesis on the basis of the data for 2001, we will reduce the reference rate by 7.5 points of percent. It was connected with the reduction of interest rates on deposits by commercial banks by 6.5 points of percentage, while the interest rate reduction for loans to private individuals was only 2.1 points of percentage. In stabilized economies, commercial banks are very sensitive to the transmission of monetary policy impulses.
Another threat is the so-called service packages associated with the personal account. These are typical marketing activities that display extremely cheap or unpaid services, and camouflage the prices of other services offered in this package. These offers are not very transparent to customers and often violate the consumer's interests.

[25] *Zagrożenia dla konsumentów na rynku bankowości detalicznej w Polsce,* Raport opracowany przez Instytut Badań nad Gospodarką Rynkową, Warszawa 2003, pp.12-27.

Strong competition in the market of retail banking services as an advantage for the retail client also plays a significant role. Liberalization of banking law, Poland's accession to the European Union, development of virtual banking are the main factors conducive to the increase of competition on the financial services market and thus improvement of the relationship between the bank and the client. The evolution of distribution channels towards the so-called multi-channel model as a positive trend for the retail client. Currently, the importance of a fixed distribution network for virtual banking, especially on the internet, is falling. The security of transactions carried out via the Internet becomes a problem for potential customers.

3. Conclusions

Nowadays, the CSR concept is a key element that allows companies to maintain their market shares and is treated not as a cost but as an opportunity on the market. Nowadays, not only CSR and sustainable development are discussed more broadly, but even broadly understood is the issue of „social responsibility" - not only in the context of enterprises, but also the functioning of entire economies. The paper discussed the issue of corporate social responsibility, which will therefore be of increasing importance in creating the economic reality due to the growing importance of intangible factors in shaping the value of the enterprise and increasing social awareness, especially in the face of functioning in the global economy (globalization processes). The work also discussed the functioning of financial institutions in Poland as well as the issues of unfair practices on the banking services market. This work sought to pay attention to a very important aspect of social responsibility which is the trust of the customer - the consumer, or its fall to a particular bank, by, for example, omitting important information during the presentation, masking with fine print or otherwise concealing information about unfavorable aspects of the contract. In connection with the above, the goal of the work has been achieved.

Literature

1. *Bankowość dla praktyków. Europejski Certyfikat Bankowca EFCB,* ed. by M. Klimontowicz, Warszawa 2017, ISBN 978-83-927671-1-4.
2. CARROLL, A. B., *The Pyramid of Corporate social Responsibility: toward the Moral Management of Organizational stakeholders,* „Business Horizons", 1991, July–August, ISSN 0007-6813.
3. CZECHOWSKA I., *Etyka działalności bankowo-ubezpieczeniowego usługodawcy*, Etyka w życiu gospodarczym, Salezjańska Wyższa Szkoła Ekonomii i Zarządzania, Łódź 2009, tom 12, nr 1, ISSN 2353-4869.
4. KŁOSIŃSKI K. A., MASŁOWSKI A., *Globalizacja sektora usług w Polsce*, PWE, Warszawa 2005, ISBN 83-208-1576-2.
5. LENTNER C.., SZEGEDI K., TATAY T., *Corporate Social Responsibility in the Banking Sector,* „Public Finance Quarterly", 2015, no.1, ISSN 1091-1421.
6. MENG-WEN W., CHUNG-HUA S., *Corporate social responsibility in the banking industry: Motives and financial performance,* „Journal of Banking & Finance",Vol. 37, Issue 9, September 2013, ISSN 0378-4266.
7. PALIWODA-MATIOLAŃSKA A., *Odpowiedzialność społeczna w procesie zarządzania przedsiębiorstwem*, Wydawnictwo C.H. Beck, Warszawa 2009, ISBN 978-83-255-0735-0.
8. *Professionals' Perspectives of Corporate social Responsibility,* ed. by S. O. Idowu, W. L. Filho, Cspringer – Verlag, Berlin–Heidelberg, 2009, ISBN 978-3-642-02629 4.
9. S*połeczna Odpowiedzialność instytucji finansowych,* ed. by M. Bąk, P. Kulawczuk, IBnDiPP, Warszawa 2009, ISBN 978-83-927151-5-3.

10. SZOPIK-DEPCZYŃSKA K., *Społeczna odpowiedzialność biznesu (CSR) w aspekcie wyzwań globalizacyjnych i zrównoważonego rozwoju,* Odpowiedzialność podmiotów na rynku, ed. by B. Czerniachowicz, A. Wieczorek-Szymańska, K. Kazojć, Zapol, Szczecin 2016, ISBN 978-83-7518-823-3.
11. THOMPSON, P. COWTON, C. J., *Bringing the environment into Bank Lending: implications for environmental Reporting,* „British Accounting Review", 2004, no. 36, ISSN 10958347, 08908389.
12. *Uczciwość w świecie finansów*, ed. by W. Gasparski, Wyższa Szkoła przedsiębiorczości i Zarządzania im. Leona Koźmińskiego, Warszawa 2004, ISBN 83-89437-36-8.
13. VIGANÒ, F. NICOLAI, D., *CSR in the European Banking sector: evidence from a survey* [in:] ed. by Barth, R. Wol , F., *Corporate social Responsibility in Europe: Rhetoric and Realities*, Edward elgar Publishing Inc. 2009, ISBN 978 1 84720 764 7.
14. *Zagrożenia dla konsumentów na rynku bankowości detalicznej w Polsce*, Raport opracowany przez Instytut Badań nad Gospodarką Rynkową, Warszawa 2003.
15. http://www.nbp.pl/home.aspx?f=/o_nbp/o_nbp.html (12.12.2017).
16. http://www.knf.gov.pl/o_nas/komisja/index.html (12.12.2017).
17. http://www.knf.gov.pl/o_nas/komisja/index.html (12.12.2017).
18. http://pl.wikipedia.org/wiki/Bankowy_Fundusz_Gwarancyjny (12.12.2017)
19. http://odpowiedzialnybiznes.pl/pl/baza-wiedzy.html (12.12.2017)
20. http://en.finance.sia-partners.com/corporate-social-responsibility-csr-sustainability-within-banking (12.12.2017)
21. http://zbp.pl/public/repozytorium/dla_bankow/prawo/komisja_etyki_bankowej/etyka.pdf- (12.12.2017)
22. https://dailynewsegypt.com/2016/02/22/corporate-social-responsibility-in-banks/ (12.12.2017)

Contact

Dr. Katarzyna Szopik-Depczynska, Ph.D.
University of Szczecin
Mickiewicza 69, Szczecin, Poland
Tel: +48 507166608

LEADERSHIP STYLE AND CORPORATE MANAGEMENT

Nurgul Ryskulova

Abstract

The purpose of this thesis is to analyse the leadership style in the corporate management. I want to write about the existing theory and about my PhD thesis aim. Leadership is a transtemporal phenomenon that exists in all cultures. So the philosophers and also leaders developed different models. So Neuberger mean that there are 30 to 40 different leadership theories and they are more or less connected with each other. The theories do not replace each other but exist side by side (see Mahlmann 2011, p. 11). Despite the large number of leadership theories there was no comprehensive theory (Wunderer 2011, p. 273). In Germany and in Europe the analysis of leadership and leadership styles is a common topic. Leadership as a subject is getting more and more important in relation to current challenges of digitalization and globalization. However developing countries have little research in terms of leadership. In my work I want to do research in relation to Kyrgyzstan.

Keywords: *Intercultural leader, challenge, transformation*

1 LEADERSHIP IN COMPANIES

The present work not only contributes to the investigation of the complex relationships between person, environment and company, but also contributes to the distinctiveness of the constructs leadership behavior in different counties.

For the main understanding it is needed to talk aboout the leadership and about the companies.

In the first step it is needed to describe the definition of leadership and find the right definition of it.

Executives often determine the actions of organizations and decide on the success of companies, because they influence the design and performance of the core processes of a company essential. In numerous management concepts is the quality attributed a significant role by executives.

Especially the executives learn because of their double position and a massive implementation pressure from above and need at the same time represent the interests of the employees subordinated to them. Either the professional and social qualification as well as the further education of therefore, service providers of a company increasingly come to the fore and decide on success and failure. The leading forces must always be able to meet the growing complexity of the professional. To capture the environment and through purposeful, self-confident, reflective and to lead responsible acting creatively.

Entrepreneurship in decentralized structures, global orientation, permanent pressure for change and the adequate leadership are the challenges that arise for what executives are asked. The have to be able to be flexible to enter into economic and social changes and to look ahead to act. In the future, companies must increasingly be in a position to give an understanding for executives and the employees for changing competence requirements and behavioral claims for qualifying purpose.

Because structural changes do not "automatically" change behavior after himself. Rather, structural measures provide the framework for the necessary changes in consciousness and behavior, which can achieve qualification and competence development.

Because the understanding of leadership is tight connected with the organizational structure of a company. Structures modified the demands on the managers change.

The starting point of the work are the serious change processes of a structural change and the associated changes in requirements of executives.
Globalization and digitalization have become a very topical subjects of our time and our society. The working conditions are getting harder also increase our working time and performance pressure and cause higher speed. It is possible because of modern communication technologies. For this reason the flexibility is more and more demanded.
In my work, I want to describe leadership and do a comparison with other countries like Kyrgyzstan. I am at the beginning of my work. Authoritarian leadership was common in Kyrgyzstan and it was increasingly difficult to break out of this process.

1.1 Industrial Psychology

If we take a look far into the past, we started with the definition of "work".
The testimonials to the history of work are usually not from the "working masses" themselves. They also do not say anything about the work experience itself. It is largely about social interpretive schemata that should not be confused with social reality. For this reason, the history of the work on further routes can only be reconstructed as a history of the attitudes of the upper classes. History of work thus means: from the ostracism of work to the dignity of work (Werner Stengel, 1997).
After all, the supposedly epoch-specific forms of exploitation, constructions that reveal little about the practical working conditions and their distribution (Kuchenbuch & Sokoll, 1990, p. 28 f.).
The environment is itself a complex system of structures which is characterized by specific features and built according to specific organizational principles.
Moreover, the interaction of the socio-economic sphere with the physical and biological is much more complex and much less thoroughly explored than that of those subsystems that are the subject of conventional academic disciplines (Werner Stengel, 1997).
Traditionally, in work psychology, negative emotions receive more attention than positive ones. What is a good and successful leader or manager? How to define and measure leadership efficiency? Is leadership success more related to leadership, to leadership styles, and to the relationship between the transversal / subordinate interaction? In other words, is leadership entirely customizable, changeable, influence able, and therefore not very fateful?
Leadership is a reciprocal, result-oriented, unstable object of giving and receiving, of expecting and fulfilling between leader. These are always (micro) political processes, because "leadership" stands not just only for neutral psychosocial "soft facts" such as relationships, behaviors, feelings, motivation, climate, shared successes but always at the same time for interests, power, counter-power, dependencies and sovereignty (see Rieckmann, 2000).
Because of all these complex relationships, leadership can only be understood as a multi-dimensional, complex process.
To illustrate why the leadership in Kyrgyzstan is a peculiarity, it is necessary to present the country and their history and out of this my research field.

2 KYRGYZSTAN AND THE CURRENT SITUATION.

Kyrgyzstan is undergoing a profound transformation process that has spread to all sectors of society.
After Kyrgyzstan gained independence in 1991 through the dissolution of the former USSR, the Central Asian state was given a unique opportunity to rebuild its own state. It also offered the people the opportunity to incorporate their own ideas in the new system of government. After decades of centralized Soviet politics, there had always been existing a need to

articulate their own interests. With the dissolution of the former USSR, the opportunity arose to develop their own national identity.
"How to continue?" was the key question during the independence effort in 1991. The state of Kyrgyzstan was on its own from this point on. This resulted in a multitude of challenges, all of which had to be tackled simultaneously but without a corresponding wealth of experience.
After the collapse of the Soviet Union, the centrally controlled economic system had ceased to exist, the social model of a socialist system lost its legitimacy. The country was confronted with western concepts of democracy. Traditional social lifestyles returned to the surface and even "modern" Western values found their way into political discourse.
Because of its willingness to reform, Kyrgyzstan was often referred to as the "island of democracy in the heart of Central Asia" and was an example for the implementation of reforms. (Reinecke 1995, p. 5.)
The young Kyrgyz state try to consider the national interests, to set the domestic and foreign policy course, to find a place in the international political arena and to set foreign policy priorities. After gaining independence, Kyrgyzstan thought to create agreements and institutional arrangements for regional integrity.
After the Declaration of Independence, Kyrgyzstan initiated comprehensive reforms. The aim of the reforms were the replacement of socialism by a Western democracy and exchange from a planned economy to a market-oriented, liberal economy. Kyrgyzstan received preferential treatment from its foreign neighbors over its neighbors under cooperation agreements. At the same time, the largely unproblematic entry of foreigners seemed to indicate a tourist future.
The sudden collapse of the system was not followed by a stringent transformation process that would have led Kyrgyzstan step by step towards a market economy, democracy and civil society. It was a hope of many western scientists and politicians at the start of independence. At the present time the development is stagnating, especially in the political sphere, which has meanwhile assumed more and more authoritarian features.
According to general public opinion, the complete modernization has not happened so far and the transformation is not yet complete. The socio-economic state of the country has leading to increasing social dissatisfaction. As a result, two revolutions have taken place since independence in Kyrgyzstan. The aim of the first was the dismissal of President Akayev, who had been in government with his family for fourteen years, and in the second, which took place on April 7.2010 the second president, Bakiyev, was overthrown.

2.1 Kyrgyzstan. Historical sequence.

For further discussions of the transformation topic in the context of socialist change in Kyrgyzstan, it is important first to consider the history of Kyrgyzstan, listing only the most significant events in this history.
The Kyrgyz Republic is located in Central Asia, at the intersection of the Turkic peoples of the steppes and the Persian, Chinese and Russian civilizations (see Fig. 1).



Fig. 1

By the middle of the eighteenth century, they nominally fell under Chinese sovereignty, but retained their independence until they became leader of the Khanate Kokand around the year 1830 (see Soucek 2000, p. 159 ff.)

In 1864 Russia established the borders of its empire, and included at the eastern border the main part of the Kyrgyz territory (by the Treaty of Chuguchak with China). The Kyrgyz people belong after the appropriation of the Khanate Kokand in 1876 to the Russian Tsars (see Liebowitz 1995).

The October Revolution in 1917 and the Soviet occupation of the entire territory of the former Russian Empire led to major changes for the population in all areas of political, economic and social life.

After the fall of the czardom, the Soviet government pursued a strict policy that divided Central Asia into political entities that would correspond to the ethnic groups living there.

Today's capital of Kyrgyzstan, Bishkek, was one of the urban centers built by the Russians. The entire north of the country was farmed by the Russians, so that the Kyrgyz settled there especially numerous.

Organized in tribes and clans, the Kyrgyz people were for a long time an islamized nomadic people. Therefore, power was rarely in the hands of a single person. A clan is made up of several families of patrilinear lineage and forms a social, political and economic unit in Kyrgyzstan. Livestock and grain crops were the economic basis of life. At the political level the oldest, mostly male, member always faced a budget but did not have absolute freedom of choice. Important decisions could only be made by all adult men of a household or a clan (see Dahmen 2000/2001, p. 48; Huskey Jahr, p. 100; van Leeuwen et al. 1994, p. 24.)

Kyrgyzstan, like the other Soviet republics, was politically dominated by the Communist Party, which had the most resources to power it. The decisive characteristic of all mass organizations was their monopoly character, so there was only one youth association, one women's association, etc. Alternative organizations were suppressed.

This system was officially terminated in 1990. Tt came to independence, after the collapse of the Soviet Union in the wake of the failed coup against Michael Gorbachev 1991. On August 31 the Kyrgyz Supreme Soviet declared the republic independent.

After the October Revolution of 1917, there was a seizure of power by the Soviets (see Humphrey 1983,p. 434; Werner 1997, p. 88 ff.) The first transformation involved the transformation of the Kyrgyz nomads, organized in clan structures, into a socialist, egalitarian

society. The second transformation phase was the time after the declaration of independence (see. Reißig 1994, p. 6; Yoshida 1999, p. 1)
Successful transformation requires theoretical and practical prerequisites for economic adjustment. These include legal and institutional framework conditions that go beyond the release of prices.
It is necessary that the banking sector be divided into two parts: a politically independent central bank and a system of commercial banks
The currency over which the central bank has to keep in check must provide the certainty that the money supply remains independent of government requirements. Medium-term goal is a general convertibility of the currency. Another framework condition is the shifting of operational decision-making authority from an administrative to an entrepreneurial level.
Reducing bureaucracy should enable market-driven decisions. As a consequence, institutional and fundamental spatial decentralization arise.
Ownership of private property forms the basis, but this increases the risk of private enrichment, if not flanking legal certainty for citizens and businesses is created. (Feldbtrugge 1993, p. 229ff) Indispensable prerequisite is a change of mentality, because private commitment and individual responsibility have to gain the primacy of bureaucratic taxation and dependencies.

2.2 Leadership structure in Kirgistan

This makes it clear that the origin of a political leader was of particular importance. However, the merit of a person was also decisive for their political position.
In Kyrgyzstan, there was never a common political leader, let alone a state apparatus. All kinship groups represented self-reliant political entities or units.
The Biy, the head of the noblest clan, headed each tribe or clan. His position passed to the eldest son after his death. The authority of the Biy was responsible for the whole group and their reputation, integrity and wellbeing. Rich tribesmen had to support the poorer ones.
The political clans determined to current time by a combination of Soviet bureaucracy and old traditions have emerged as "... regionally alliances competing for access to state resources." (Koichuev 1985, p. 33)
Belonging to one of these clans was important for the allocation of political positions. The political leaders had to prove their loyalty to the high-ranking person rather than to legitimize themselves against their governed people. It was perfectly legitimate to derive economic benefits from a leading political position and to give well-paid posts to followers of their own clan. However, this procedure should not become too public and should not exceed a certain scope (see Koichuev 1985.)
Despite extensive liberalization of the economy, the newly formed group of entrepreneurs continued to be closely associated with the state employees.
Although there were already several employers' associations, some of which were also represented in labor market coordination boards, the formulation of collective business interests and the emergence of a state-bureaucracy-free market economy were still in their infancy. The close relationship between state bureaucracy and entrepreneurs was also due to the privatization process, in which were given preference to the previous management or to persons with contacts to the bureaucracy, contrary to the applicable regulations. In the newly elected parliament, mainly state employees and entrepreneurs were represented.

3 CONCLUSION

The Soviet Union had not developed a supporting concept in dealing with the nationality issue. The Soviet state is not shattered because of its centralized basic structures and the domination of Russian majority nationality, it did not support the emancipation of non-

Russian ethnic groups and nationalities, and was often not even willing to admit to regional identification, while on the other hand there took place the development of a national elite.
After the collapse of the Soviet Union and the attainment of independence, all the states of the former USSR are in a difficult transformation process whose direction and goal are not always clear. At the same time, tendencies of change are mixed with stagnative, relationship-related trends.
The newly formed Kyrgyzstan, which was constitutionally democratic, faced massive problems. These were above all:

- an old and partly rotted infrastructure,
- massive environmental problems,
- high unemployment due to the employment structures left by the USSR,
- old and inadequate structures of trade,

Ailing economic structures that had left behind a 70-year soviet empire, and for whose transformation on the western model only two possible paths were open: a shock therapy or a slow gradual transformation.
From the very beginning, the socialist idea of ownership proved to be an obstacle to the desired transition to a market economy. The transition to a market economy has been hampered by factors such as paternalism and prevailing economic behaviors, which are due to the incentive system of the planned economy and its distortion of performance orientation. Further problems resulted also from the start of privatization, primarily the "small privatization". The reorganization of economic structures is still effectively blocked by individual interest groups and bureaucratic structures.
The long-term functioning of market-based and democratic institutions largely depends on their employees witch have to learn the necessary skills and to discard or correct outdated behavior. The transformation of an economic system can only be succeed if the necessary political capital is available. It is made up of the following three main components: the existence of a democratic government that, according to Bourdieu, has authoritarian features and should be able to quickly undertake the necessary transformation, a sufficiently broad national consensus at the beginning of the transformation and the early creation of an effective one framework.
Such a determined civil society had no place in 70 years of socialist rule. It was strived for equality, instead of individuality, there were only a few state-free areas, diversity was only rarely and if, then strictly monitored and the leaders exercised a sharp control over the population, and not vice versa. For the post-soviet societies, the concept of a "civil society" was therefore a foreign word, because even in the pre-soviet period, there was no such thing in Central Asia (see Star 2005, p. 69)
As a result, Central Asian leaders were surprised and overwhelmed by the transformational demands that came with their sudden independence. The population was in no way prepared for a civilian upheaval. In contrast to other post-communist societies there was a insignificant democratic strike or protest culture. The preconditions for the establishment of a civil society in Central Asia were absolutely unfavorable because the system was renewed from top to bottom (see Star 2005, p. 46).
There was no official unemployment in the Soviet Union, as the entire population was formally employed and had a monthly income. In case of illness the state guaranteed the free treatment by a national health insurance.
The food supply of the population was ensured by subsidized state-run convenience stores, the prices of which were determined by the state. People did not have to organize their own livelihood because the state offered security and work.

In the first years of independence the general situation worsened. The closure of factories and the decline of agriculture led to mass unemployment in Kyrgyzstan and the lack of daily necessities in the first half of the 1990s has dramatically worsened the families' situation. The traditional concept of the family, consisting of a male breadwinner, his wife and children gradually dissolved. Poverty and inadequate resources compel families to diversify their income generation strategies, making maximum use of available labor and resources (see Livelihood 18f.)

Since a work place in the government or in agriculture is barely sufficient for the family's livelihood and these jobs are also very limited, people have to look for other ways to look after themselves and their families. In most cases income is made up of various sources, such as paid wage labor, whether as a teacher or civil servant, the supply of basic goods from one's own farm and / or from commercial transactions (Stadelbauer 2000, p. 160f.)

The temptation to abuse power in executive positions to supplement own income is therefore (understandably) quite large. There are many reports that inofficial extra income may in some cases be higher than the official salary. This system runs through the entire administration, and as the hierarchy increases, so does the level of illegal income. (See Koichuev 2007, p. 37.)

The population is also looking for new ways to generate income. When the state still regulated the supply of food and other consumer goods, very few people were simultaneously employed in two or three state institutions. Today there are a large number of small private shops (see Dunk 2005, p. 49) and the number of small businesses is steadily increasing.

So only the people who have the necessary skills or resources already acquired in Soviet times in the form of money, property can benefit by Kyrgyzstan's market economy today.

People were in no way prepared to take responsibility for their livelihood and to act rationally economically. As the state security network has disappeared, social networks are becoming increasingly important to the population. The people of Kyrgyzstan need to reorient themselves and learn to think and act on their own responsibility, because the country is undergoing a process of transformation towards democracy and a free-market economy.

So in this transformation period is missing a strong and stable leader.

The idea of my work is influenced by the fact that Kyrgyzstan could solve its problems when a new leadership elite at the executive level will arise. Who will implement successfully the transformation process and recognize the necessary measures. For this reason, it is necessary to do research about the leader subject and develop new concept of a leader and leadership and what have to be adjusted to the current situation in Kyrgyzstan.

Sources

1. Psychologie der Arbeit von Werner Stengel, 1997 Psychologie Verlags Union, Weinheim: (Kapp, 1988, S XVI): soziale Kosten der Marktwirtschaft. Frankfurt/Main: Fischer
2. Mahlmann, R. (2011). *Führungsstile gezielt einsetzen – Mitarbeiterorientiert, situativ und authentisch*. Weinheim, Basel: Beltz.
3. Wunderer, R. (2011). *Führung und Zusammenarbeit - Eine unternehmerische Führungslehre* (9., neu bearb. Aufl.). Köln: Luchterhand.
4. Neuberger, O. (1990). *Führen und geführt werden* (3., völlig überarb. Aufl. von „Führung“). Stuttgart: Enke.
5. Rieckmann, Heijo, Führungs-Kraft und Management Development. München: Gerling-Akad.-Verl., 2000
6. Reinecke, Gerhard 1995. *Politische Entwicklung im nachsowjetischen Mittelasien: Demokratisierung in Kirgistan*. Berichte des Bundesinstitutes für ostwissenschaftliche und internationale Studien. (S. 1-39)

7. Soucek, S. (2000): *A History of Central Asia*, Cambridge: Cambridge University Press.
8. Dahmen, A., 2000/01. *Die Bedeutung von Verwandtschaft innerhalb der kirgisischen Sozialstruktur, in Zwischen Markt- und Mangelwirtschaft:* Berichte eines Feldforschungsaufenthaltes im ländlichen Kasachstan und Kirgizstan im Jahre 1999,Dahmen, Andreas, 2000/01. Die Bedeutung von Verwandtschaft innerhalb der kirgisischen
9. Reißig, R. (1994): *Transformation – Theoretisch-konzeptionelle Ansätze und Erklärungsversuche*, in: Berliner Journal für Soziologie, H. 3, S. 323-343.
10. Humphrey, C. 1983. Karl Marx Collective: Economy, Society and Religion in a Sibirian Collective Farm. Cambridge: University Press.
11. Feldbrugge Ferdinand J. M. und Feldbrugge F. von Brill Academic Pub (Gebundene Ausgabe - Dezember 1992): *FeldLaw in Eastern Europe, the Emancipation of Soviet Law*
12. Star, F. (2005): *Partnerschaft für Zentralasien. Defizit der Aufmerksamkeit?* In: Russland in der globalen Politik, Ausg. Juli-August 2005, S. 69.
13. Koichuev T. (1999), *Postsowjetische Umstrukturierung*: *Theorie, Ideologie, Realien.* Bishkek 1999. Verlag "V.R.S.Company".
14. Von der Dunck, A. (2005): Der Einzelhandel in Arslanbob – Chancen und Risiken einer diversifizierten Einkommensstruktur in Süd-Kirgistan. Unveröff. Magisterarbeit an der Friedrich-Alexander-Universität Erlangen-Nürnberg.
15. Schmidt, M.: *Transformation der Livelihood Strategies im ländlichen Kirgistan. Verlorene Sicherheiten und neue Hherausforderungen*. Zentrum für Entwicklungsländer-Forschung (ZELF) Insitut für Geographische Wissenschaften Freie Universität Berlin 2006
16. Stadelbauer, J. (2000): Räumliche Transformationsprozesse und Aufgaben geographischer Transformationsforschung, in: Europa Regional 8, p. 60-71.
17. Bourdieu, P. (1991), *Das Feld der Macht und die technokratische Herrschaft*, in Bourdieu, Pierre, *Die Intellektuellen und die Macht* (herausgegeben von Irene Dölling). Hamburg: VSA-Verlag: 67-100.

Contact

Nurgul Ryskulova
University of Latvia
Kunigundenstr. 28, Munich, Germany
Tel: +49 173 58 48 606
email: nurgul.ryskulova@gmx.net

CORPORATE CULTURE AS AN IMPORTANT FACTOR IN THE IMPLEMENTATION OF KNOWLEDGE MANAGEMENT

Jaroslava Bučková

Abstract

Knowledge and knowledge management are now increasingly seen as a critical part of the corporations. The increase development needs of corporate knowledge as well as innovative activities, whilst underlining the need and importance of corporate culture, because the content of the corporate culture consists of basic assumptions, values, norms of behaviour that are shared within the corporation and externally are manifested through behaviour and artefacts. That's why the corporate culture inherently clearly affects the level and success in implementing knowledge management. This article aims to highlight the importance of corporate culture in building knowledge management and point out key elements that influence corporate culture supporting knowledge sharing.

Key words: *corporate culture, corporation, knowledge, knowledge management*

1 INTRODUCTON

Knowledge management has emerged as one of the most important area in management practices and is established as a basic resource for firms and economies. Peter Senge believes that the only competitive advantage in the world's future will be the knowledge owned by corporation, as well as the ability of the corporation to continue learning (Duffy & Jan, 2000). Knowledge management is regarded as collection, distribution and efficient use of knowledge resources. It is a process of knowledge creation, validation, presentation, distribution and evaluation. Knowledge management is a multi dimensional construct with a large number of interrelated attributes. However, its three components or attributes that are commonly found in the literature are: knowledge acquisition or adaptation, knowledge dissemination or sharing and responsiveness to knowledge or knowledge use. The knowledge management practices in the corporations depend on some prerequisites.

One of the important pre-condition for effective knowledge management is corporate culture. Thus, one needs to understand what the culture of the corporate is, and one needs to understand whether or not this culture will enable knowledge management or hinder knowledge management. Furthermore, an excessive focus on technical issues rather than social aspects, results in poor knowledge management practices or altogether failure to comply the practices in the corporations. Specifically, there is lack of empirical evidence about what are the specific cultural variables that support knowledge management processes and help in development of knowledge culture (Oliver and Kandadi, 2006). Consequently, this necessitates understanding the success and failure of knowledge management within corporations by identifying and assessing the preconditions that are necessary to flourish the endeavour. Many scholars and practitioners (Lopez et al., 2004; Kulkarni et al., 2007) believe that a corporate culture that is supportive and or adaptive can enable the successful implementation of knowledge management technologies as well as practices.

2 LITERATURE REVIEW

This section rigorously reviews the relevant literature to point to the importance and the substance of knowledge management and characteristics of corporate culture, as well as the relationships between them.

Standards Australia (2005) defines knowledge managements as the design, review and implementation of both social and technological processes to improve the application of knowledge, in the collective interest of stake holders. Nonaka (2007) prefers to call knowledge management knowledge-based management, connecting people to people and people to information to create competitive advantage. Bergeron (2003, p. 54) defines knowledge management in this way: "Knowledge management is a deliberate, systematic business optimization strategy that selects, distils stores, organizes packages, and communicates information essentials to the business of a company in a manner that improves employee´s performance and corporate competitiveness." According to Collison (2005) is knowledge management an integrated, systematic approach to identify, manage, and share all of the department's information assets, including databases, documents, policies and procedures, as well as previously unarticulated expertise and experience resident in individual officers.

Knowledge management implementation in corporation will aid in effectively and efficiently solving learning problems and apply strategic planning and dynamic decision making (Gupta, 2000). Lopez noted that knowledge and corporate capabilities are forms of strategic capitals that promote the corporation's long-term goals and have strategic application in dynamic contexts. One of the key goals of knowledge management is to transform implicit knowledge to explicit knowledge; this leads to a reduction in the loss of valuable knowledge due to performance declines, as well as a reduction in the loss of corporate memory (Liebowitz, 2015). A comprehensive definition of knowledge management, which includes many aspects of knowledge management and serves as a basic definition of the concept in this paper is presented by Davenport and Prusak, i.e., the "exploitation and development of knowledge assets in the corporation, in [such] a way that goals are achieved" (Davenport & Prusak, 1998, p. 47). Generally, we can say that knowledge management is a process that helps companies to detect, select, organize and distribute important skills and information that is not usually accessible or organized, and can be considered as corporate memory. Many scholars and practitioners: Lopez et al., 2004; Kulkarni et al., 2007 and others believe that a corporate culture that is supportive or adaptive can enable the successful implementation of knowledge management technologies as well as practices.

Schein (2004, p. 34) defined corporate culture as: "A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and therefore to be taught to new members". This is the most widely used definition. Schein (2004) posited that culture is the most difficult attribute to successfully achieve by many corporate. Schein corporate model illuminates culture from the standpoint of three cognitive levels of corporate culture (basic assumptions, values and artefacts). Cooke and Lafferty (1987) came up with the concept of corporate culture inventory define culture as the behaviours that members believe are required to fit in and meet expectations within their corporation (Easterby-Smith, 2011).

According to Cooke and Lafferty, corporate culture inventory, measures twelve behaviors of norms that are grouped into three general types of culture:

- constructive cultures, in which members are encouraged to interact with people and approach tasks in way that help them meet their higher satisfaction needs. passive/defensive cultures, in which members believe they need to interact with others in ways that might not threaten their own security.
- aggressive/defensive culture, in which members are expected to approach tasks in forceful ways to protect their status and security (Easterby-Smith, 2011).

Hofstede (2005, p. 47) called culture the "software of the mind". Notwithstanding the numerous definitions that exist, there is no consensus regarding a single exact definition of corporate culture. From the above, corporate culture is reflected in the way people perform

tasks, set objectives and administer the necessary resources to achieve set objectives. Culture affects, the way individuals make decisions, feel and act in response to the opportunities and threats affecting the corporations. Thus, culture is a sort of glue that bonds the social structure of a corporation together.

3 IMPORTANCE OF CORPORATE CULTURE FOR IMPLEMENTATION THE KNOWLEDGE MANAGEMENT

The creation and transfer of knowledge in a corporate has become a critical factor in corporation´s success and competitiveness. Many corporations are now concentrating their efforts on how knowledge particularly tacit knowledge that exists in the corporate can be transferred across the corporations. In studies done in various corporate, Dixon (2000) found that the two main knowledge activities that need to be balanced are the creation of knowledge (referred to as common knowledge) and the transferring of knowledge across time and space. Generally, when something is being transferred, someone will gain it and someone else will lose it.

However, knowledge, which is regarded as an intangible asset, is different from tangible assets. Tangible assets tend to depreciate in value when they are used, but knowledge grows when used and depreciates when not used (Nonaka, 2007). Knowledge transfer requires the willingness of a group or individual to work with others and share knowledge to their mutual benefit. Without sharing, it is almost impossible for knowledge to be transferred to other person. This shows that knowledge transfer will not occur in corporation unless its employees and work groups display a high level of co-operative behaviour. Knowledge is transferred not only from individual to individual, but also involves „individual to a team or group, team or group to individual, or team or group to team or group. According to Davenport and Prusak, knowledge transfer involves two actions which are „transmission (sending or presenting knowledge to a potential recipient) and absorption by that person or group. (Davenport and Prusak, 1998, p. 101). They further stress that „transmission and absorption have no value unless they lead to some change in behaviour, or the development of some idea that leads to new behaviour. (Davenport and Prusak, 1998, p. 101)

So one of the most import ants questions for corporate interested in implementing knowledge management is what are the key enables to help us be successful? Several studies have tried to identify these enablers for knowledge management. Figure 1 displays the results of one European-wide company survey asking about the main success factors for knowledge management initiatives. Nearly one company in two mentioned corporate culture as one of the main enables for knowledge management. Almost every third company named structures and processes, information technology, skills and motivation and management support as key success factors.

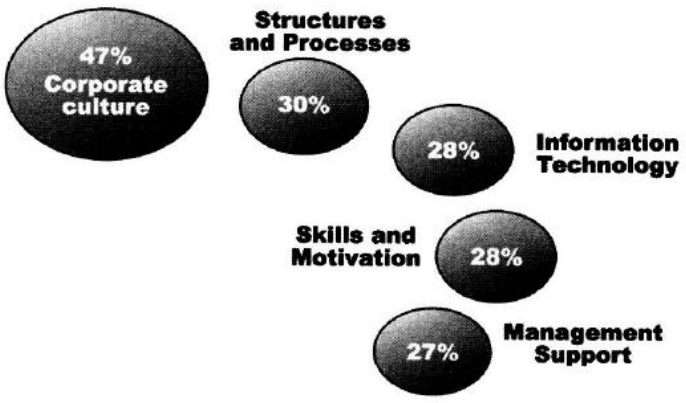


Figure 1 Main enablers of knowledge management initiatives.
Source: Mertins (2003, p. 148)

Also other studies and practices pointed on culture as a key success factor for implementing knowledge management. For example Skyrme and Amidon (1997) highlighted seven key success factors. These includes a strong link to a business imperative, a compelling vision and architecture, knowledge leadership, a *knowledge creating and sharing culture*, continuous learning, a well-developed technology infrastructure and systematic corporate knowledge processes. These factors play a key role in taking advantage of hidden benefits; however, achieving them can be complicated. These factors are called critical success factors or bottlenecks. Lacking these factors is a major corporate barrier for achieving corporate goals.
Wong and Spinwall (2005) discussed managerial factors that affect knowledge management's successful implementation within 11 frameworks. These factors are: leadership and leadership support, *culture*, information technology, goals and strategies, evaluation, corporate infrastructure, corporate activities and process, incentives, resources and training and human resource management.
Collison (2005) claims those top managers' support, *corporate culture*, technological infrastructure, knowledge management strategy, performance appraisal, corporate infrastructure, activities and processes, rewards, resource limitations, education and training, human resource management and benchmarking. So, we can say, that corporate culture is an important driving force behind all the movements in the corporation. According the results of many studies is corporate culture one of the major reasons behind the failures of knowledge management initiatives and it is crucial for successful knowledge management. Corporate culture impacts the knowledge exchange, the combinative interaction, and the perceived value of corporate members (Schein, 2004), thus it has a significant effect on knowledge creation capability.
According to studies, practices mentioned above and many others, we can divide these factors two four groups. Figure 2 shows critical success factors grouped into four pillars, that can help corporation to derive real and significant results in its most critical business processes and measures through its knowledge management initiative. Corporation need to have all four pillars in place. Half measures will not give the company any significant results.

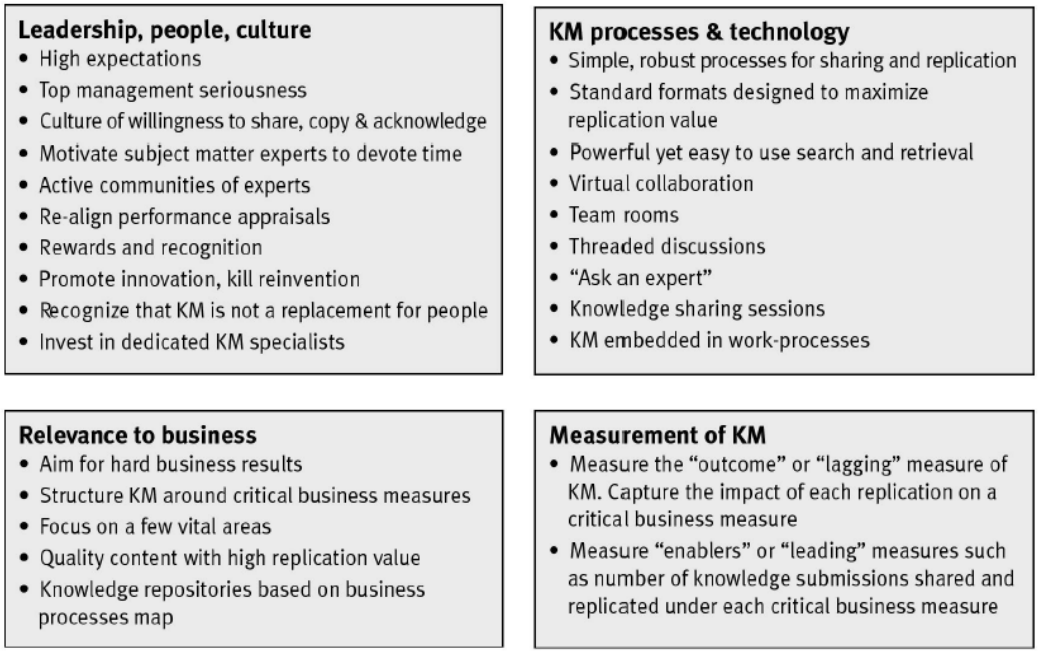


Figure 2 The four pillars of knowledge management
Source: Easterby-Smith (2011)

3.1 Key element sof corporate culture supporting the knowledge management

Senge believes that in the future only two types of corporations will exist: ceased corporations that will disappear slowly and unexpectedly; and the learning corporations that will have the ability to learn and to react on fluid market much faster than their competitors (Collison, 2005). Resultantly, the success or failure of knowledge management within corporations depends on culture, an emerging pre-requisite for effective knowledge management. Researchers argued that culture is a complex system of norms and values that is shaped over time and affects the types and variance of corporate processes and behaviours (Nonaka, 2001).

According to Schein (2011) corporate culture can be understood on three different levels (see figure 3):

- Basic assumptions are unconsciously held learned responses which determine how group members perceive, think and feel.
- Values and beliefs are part of individuals' consciously held conceptual apparatus, which they use to justify their actions and evaluate outcomes.
- The third level of culture comprises visible artefacts, by which is meant everything from office layout, dress codes and books relating company history, to stories, myths and symbols.

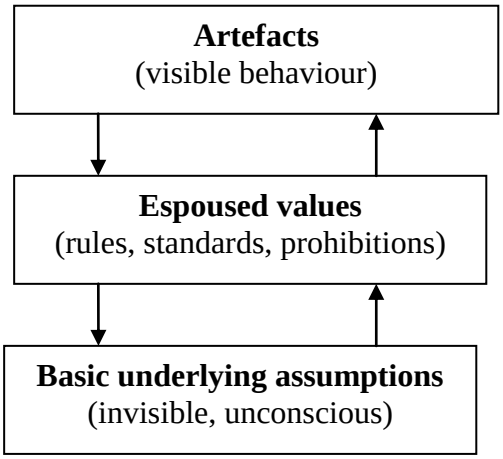


Figure 3 Three levels of culture
Source: Schein (2011, p. 78)

All three levels of corporate culture are extremely powerful determinants of corporate life, and are intuitively incorporated into the actions of skilled executives who use them to manage people, formulate strategy and induce corporate change.

Corporate culture is imperative factor for successful knowledge management (Davenport et al. 1998, Pan and Scarbrough, 1998, Martensson, 2000). It defines the core beliefs, values, norms and social customs that govern the way individuals act and behave in corporation. In general, a culture supportive of knowledge management is on that highly values knowledge and encourages its creation, sharing and application. The biggest challenge for most knowledge management efforts actually lies in developing such a culture. Since culture is a wide concept, it comprises many facets. According to some authors that have studied this kind of culture, learning culture can be described as a corporate culture that is oriented towards the promotion and facilitation of workers' learning, its share and dissemination, in order to contribute to corporate development and performance (Liebowitz, 2015). In the literature, this cultural orientation towards learning is called oriented learning culture or simply learning culture and, in short, it is the type of culture that a learning corporation should

have. In other words, "in practice, corporate learning culture can be a vital aspect of corporate culture and the core of a learning corporation" (Wang et al., 2007, p. 156).
Among them, we could highlight learning as one of the corporation's core values, a focus on people, concern for all stakeholders, stimulation of experimentation, encouraging an attitude of responsible risk, readiness to recognize errors and learn from them, and promotion of open and intense communication, as well as promotion of cooperation, interdependence and share of knowledge.
Based on the compilation of several studies, the following values are identified as key corporation values or cultural drivers (Holbeche, 2005; Rooney, 2006; Avedisian & Bennet, 2010; Kippenberger, 2010, Nevis et al, 1995, Senge, 1999, Sveiby and Simons, 2002):

- innovativeness,
- customer-centricity/focus,
- flexibility,
- openness, communication and dialogue,
- teamwork, collaboration
- trust and respect for all individuals,
- risk assumption
- creativity and
- learning (Easterby-Smith, 2011).

Edward Hall identified three levels of the culture and explained them by referring to how they influence learning:

- the formal level – here the concepts are "taught by percept and admonition (…) the learner tries, makes a mistake and is corrected." , in other words he learns using conceptual and behavioural patterns;
- the informal level – here learning is done through models and imitation;
- the technical level – here learning is done using explicit forms (Collison, 2005).

And how can be culture managed to be culture supporting knowledge management initiatives? If manager think of culture as both a source of resistance and energy, long-term „managed change" is possible. If the sailor understands the prevailing wind systems, tides and currents, he can use them to his advantage. If managers attempt to force the culture by „managing it" or insult the culture by ignoring it, they will experience its subversive and invisible power. If they aim to understand it and work with it in support of explicit change goals, the culture itself will shift over time in tune these goals.
According to Bevern (2002) corporate culture does not refer only to people, their relationships and beliefs, but it also refers to products, structures, as well as on selection and reward practices of the company. It is deeply embedded and has an intensive historical impact on present and future management.
Moreover, some of the world´s most admired and successful business leaders (for example, Lou Gerstner or Jack Welch) believe that corporate culture, if correctly aligned with the external environment, is the key to long-term corporate success (Schein, 2004). However**,** too often these soft issues are forgotten and values are just declared by the management: no real understanding about corporate values exists.
These issues will be elaborated in turn in the research of this article. This study is based on quantitative research, administered on 246 employees of three big organizations, which are in study of Kokavcová (2011) identified as organizations having elements of knowledge management. As mentioned earlier, we have selected key elements that were identical among more authors (Holbeche, Rooney, Avedisian & Bennet, Kippenberger, Nevis, Senge, Sveiby and Simons): collaboration, trust, creativity, respect for all individuals. The questionnaire consists of 55 items, 12 for culture supporting knowledge sharing, 12 for collaboration, 11 for

trust and 10 for creativity and 10 for respect of all individuals. The scale was rated on 5-point Likert-type scale, with 5 indicating "strongly agree" to 1 indicating "strongly disagree".
As part of a deeper analysis of the data file was reviewed by the correlation structure (see Table 1). According to the results of this analysis, the culture supporting knowledge sharing in surveyed organizations is mostly influenced by trust and than by collaboration.

Table 1 Correlations between evaluated variables – Pearson Correlation

	Culture supporting knowledge sharing	Collaboration	Trust	Creativity	Respect of all individuals
Culture supporting knowledge sharing	1	0,742	0,829	0,678	0,688
Collaboration		1	0,731	0,620	0,670
Trust			1	0,731	0,626
Creativity				1	0,505
Respect of all individuals					1

Based on the research results it can be said that within the organizational culture there are various characteristics of culture that affect knowledge sharing, but mostly this study focuses on trust nad collaboration. Goh (2002) assented that a collaborative culture is an important condition for knowledge transfer to happen between individuals and groups. This is because knowledge transfer requires individuals to come together to interact, exchange ideas and share knowledge with one another. Not only this, collaboration has been empirically shown to be a significant contributor to knowledge creation.
Trust is also another fundamental aspect of a knowledge friendly culture. Without a high degree of mutual trust, people will be sceptical about the intentions and behaviours of others and thus, they will likely withhold their knowledge. Building a relationship of trust between individuals and groups will help to facilitate a more proactive and open knowledge sharing process.
Besides this, there is a need to foster and innovative culture in which individuals are constantly encouraged to generate new ideas, knowledge and solutions. Likewise, Goh (2002) suggested a culture which emphasises problem seeking and solving. This reques also respect of all individuals. Individuals should also be permitted to query existing practice and to take actions through empowerment. By empowering individuals, they will have more freedom and opportunities to explore new possibilities and approaches. Equally important is the element of openness whereby mistakes are openly shared without the fear of punishment. In this respect, reasonable mistakes and failures are not only tolerated but allowed and forgive. Making mistakes should be viewed as an investment process in individuals because it can be a key source of learning.

4 CONCLUSIONS

Corporations that are successful in knowledge management consider knowledge as corporate property and develop corporate rules and values to support its production and sharing. Critical success factors of knowledge management system implementation that were identified in this study are: corporate culture dimension. The key elements of corporate culture, which support knowledge sharing, were in our research identified as trust and collaboration. The corporate

culture can be understood as a system of collective thinking which differentiates one group from another. It integrates everything that has a certain value: the style of leadership, the symbols, the norms that are shared by the members of that corporation and which are considered definitive, the goals that have to be attained and the way this should be done, in a few words, it integrates everything that defines the success of corporation. In this respect, it is necessary for managers to discuss themes related to business processes in their meetings and to disseminate among employees a vision of the company as a set of interconnected processes that must work in harmony with the strategic goals. In other words, the departmental objectives should be in line with those of the corporation as a whole. The findings of this article support the argument, that building knowledge management in organization is possible only by creating knowledge culture, which is based principally on the trust. As to knowledge culture, an attitude of organization members to knowledge, significance of its transfer to the organization is important. Behaviour of organization members, formed by knowledge culture, will determine whether knowledge is shared or not. There are many other questions, which are related with building a corporate culture supporting knowledge management such as: how human resource management affects the building of a corporate culture, how leadership style, how size of organization, scope of business and under. These questions can be an inspiration for further research.

Sources

1. BERGERON, B. *Essentials of Knowledge Management*. NY: Johy Wiley & Sons, Hoboken, 2003.
2. BEVERN, V. J. A *model of knowledge acquisition that refocuses knowledge management.* Journal of Knowledge Management. 2002. Vol. 4, no. 6, pp. 18-22.
3. COLLISON, CH., PARACEL, G. *Knowledge management*. Brno: Computer Press, 2005.
4. DAVENPORT, T. H., PRUSAK, L. *Working Knowledge: How Organizations Manage What They Know*. Boston: Harvard Business School Press, 1998.
5. DIXON, N. M. *Common Knowledge: How companies thrive by sharing what they know.* Boston: Harward Business School Press, 2000.
6. DUFFY & JAN *Knowledge management technology infrastructure.* The Information Management Journal. 2000. Vol. 34, No. 2, pp. 62-66.
7. EASTERBY-SMITH, M., LYLES, M. L. *Handbook of organizational learning and knowledge management (2nd ed.).* Oxford: Blackwell Publishing, 2011.
8. GOH, S. C. *Managing effective knowledge transfer: an integrative framework and some practice implications*. Journal of Knowledge Management. 2002, Vol. 6 No. 1, pp. 23-30.
9. GUPTA, B., IYER L. ET AL. *Knowledge management: practices and challenges,* Industrial management and data systems. 2000. Vol. 100 No. 1-2, pp. 47-56.
10. HOFSTEDE, G. *Cultures and organizations: software of the mind*. London: McGraw-Hill Book Company, 2005.
11. KOKAVCOVÁ, D. *Nová paradigma znalostného manažmentu.* Bratislava: Iura Edition, 2011.
12. KULKARNI, U. R., RAVINDRAN, S., FREEZE, R. *A knowledge management success model: Theoretical development and empirical validation,* Journal Management Information Systems. 2007. Vol. 23 No. 3, pp. 309-347.
13. LIEBOWITZ, J. *Key ingredients to the success of an organization´s knowledge management strategy,* Knowledge and Process Management. 2015. Vol. 6 No. 1, pp. 37-40.

14. MERTINS, K., HEISIG, P. ET AL. *Knowledge Management: Concepts and Practises*. NY: Springer, 2003.
15. NONAKA *Knowledge creation for the common good.* Proceedins of the international productivity conference, Knowledge management: from brain to business proceeding. Bangkok, 2007.
16. OLIVER, S., KANDADI, K. R. *How to develop knowledge culture in organizations?* A multiple case study of large distributed organizations, Journal Knowledge Management, 2006, Vol. 10 No. 4, pp. 6-24.
17. SCHEIN, E. H. *Organizational culture and leadership (3rd ed.)*, San Francisco: Jossey-Bass, 2004.
18. SKYRME, D., AMIDON, D. *The knowledge agenda*. Journal of Knowledge Management. 1997.Vol. 1 No. 1, pp. 27-37.
19. STANDARDS AUSTRALIA *Knowledge management – a guide*, 2005. AS 5037.
20. WANG, X., YANG, B. AND MCLEAN, G. *Influence of demographic factors and ownership type upon organizational learning culture in Chinese enterprises*. International Journal of Training and Development. 2007. Vol. 11 No. 3, pp. 154-65.
21. WONG, K. Y., SPINWALL, E. *An empirical study of the important factors for knowledge-management adoption in the SME sector*. Journal of knowledge Management. 2005, Vol. 9 No. 3, pp. 64-82.

Contact

PhDr. Jaroslava Bučková
Prešovská univerzita v Prešove, Fakulta manažmentu
Konštantínova 16, 080 01 Prešov
email: buckova.jaroslava@gmail.com

INTERVIEWS WITH THE DRIVERS OF THE SELECTED LOGISTICS COMPANY IN RELATION TO CSR

Simona Činčalová, Václav Cempírek

Abstract

This paper deals with Corporate Social Responsibility (CSR) in logistic company. CSR is a voluntary commitment by companies to behave responsibly towards the environment and the company they are doing. It consist of three pillars – economic, social and environmental. Nowadays CSR has become an essential part of big, multinational corporations without which any corporation of a substantial size would face difficulties from various fronts – non-government organizations, governments, public (including existing and potential customers), and even workforce itself. As in any other business, CSR has a positive effect in logistics. The long-term financial success of businesses is increasingly linked to corporate social responsibility and reporting. At the end of May and in June 2017, interviews with drivers (as key employees) associated with CSR conducted in MD logistics, Dašice, Czech Republic. According to these talks, recommendations were defined.

Key words: *CSR, logistics, drivers*

1 INTRODUCTION

At present, Corporate Social Responsibility (CSR) is becoming a topic that is increasingly being discussed. The public and the competitors are more aware of how the business behaves towards consumers, the social and the environment, the employees and the social needs of society. Successful companies are no longer enough to focus on making profits. Also, the popularity of social responsibility is growing in the Czech Republic, and the number of organizations involved in this concept is increasing. There are competitions of companies where social responsibility is the main measure, looking at how the enterprise is perceived by the public.

According to [5] "be good" is a sought after characteristic of a business - to be a good supplier, to be a good employer, to be a good neighbor, etc. It turned out that it may not be the biggest companies at all to take a significant place on this scale. Social responsibility not only does not stand against economic success but, on the contrary, belongs to it and acts as a motivating and reinforcing factor.

2 THEORETICAL BACKGROUND

The notion of "Corporate Social Responsibility" (CSR), although discussed over half a century ago, currently lacks a globally valid and unified global definition.

Jakubíková [5] explains CSR as a voluntary commitment by companies to behave responsibly towards the environment and the company they are doing. According to Petříková [8], CSR includes all activities that are far beyond the most legitimate requirements as well as the activities through which the organization seeks to understand and satisfying all stakeholders in society. Trnková [13] adds that with this concept companies openly admit to their co-responsibility for the state and the running of society.

CSR based on three basic pillars, so- called triple-bottom-line [4,6,15]:

- profit,
- people,
- planet.



Fig. 1. Triple-bottom- line of CSR.

Within the economic sphere, attention is paid to the main goals - continued profitability, which subsequently enables the company to finance CSR activities such as management and control of the organization, the fight against information and corruption, money laundering. Furthermore, organizations focus on fulfilling commitments, payment morals, consumer protection and data, compliance with contracts, transparency, credibility, establishing ethical codes, including marketing and advertising ethics, and respecting the rules of fair competition.

The social sphere includes the development of human capital, the reconciliation of the personal and working life of employees, as well as outplacement and health and safety at work. Environmental issues include, for example, eco-friendly production, ISO standards and waste management.

In the logistic sector, as well as in other businesses, it´s necessary to implement CSR for positive effects for example market growth or effectiveness [7],[9],[11].

3 METHODOLOGY AND GOALS

At the end of May and June 2017, interviews with drivers associated with CSR conducted in MD logistics, Dašice, Czech Republic. The interviews were semi-structured, or partly controlled, with pre-prepared questions that could change or complement during the interview. Semi-structured interview is a method of qualitative sociological research [1]. The basis for them was questions that included the satisfaction of employees, problems they encountered in their work, communication with other employees and awareness of actions and charitable activities of society.

The first important step was to ensure representativeness. According to Shiraev and Levy [12], the representativeness of the research population depends not only on the size of the studied population but also on its homogeneity - the more heterogeneous the population (the more heterogeneous), the more diverse subgroups it contains and the more people to include in the sample subgroup is sufficiently represented. Urbánek [14] states that the requirement of representativeness is implemented in practice by different methods of selecting the research file. The author has opted for a quota selection, a deliberate selection method that does not

happen by accident. Participants in the research are selected by specifying the extent to which a specific characteristic is to be represented in the sample. In the case of MD logistics, the following requirements were set:

- sex: min. 1 female (3 working in the enterprise),
- age of respondents: always min. 20% of drivers in each age category (20-30, 31-40, 41-50, 50 and above),
- duration of employment in the company: always min. 20% of drivers in each category (0-2, 3-5, 6-10, 11 and over),
- mode of transport: 50% of drivers in national and 50% of drivers in international truck transport.

4 RESULTS

Managed interviews were attended by a total of 20 drivers out of 220 working in the company. Duration of one interview lasted 15-25 minutes. 19 men and 1 woman were questioned, in the company work from 9 months to 34 years. Half of the drivers have horsepower in national and half in international freight transport. Half of the drivers have their own cars, so they do not have to deal with rotation between different drivers. The other half does not have problems with handing over trucks - it is always ok after the end of the ride, tidy, with all the necessary documents, minor problems are solved by mutual agreement without transfer to the managers.

The survey revealed that employees most often encounter problems that can be divided into three areas:

- loading and unloading of goods,
- technical problems,
- traffic problems (on the road).

In connection with loading and unloading the driver solves the insufficient capacity of the truck (once per week). A certain number of pallets may be placed in the load compartment, and drivers have to solve such problems themselves. The problem is that there is a lot of work, but few drivers, so they have to stack the pallets, even if in some cases it is not appropriate. In this respect, they turn to warehouses or dispatchers, but they do not usually help them, so they have to rely on their decision-often at the expense of having to rearrange the goods throughout the truck's storage space (to observe certain conditions of stacking the pallets on top of each other). Approximately once a month, some drivers happen to have other pallets (with other goods) on the road semitrailer than they should be there. This problem is subsequently addressed by dispatchers, which greatly affects their work on subsequent unloading, as these flaws have to be brought back to the place of loading. The biggest drawback is the daily downtime during loading / unloading - some of the testimonies show that drivers feel that these waiting times are unwarranted and sometimes have to wait until the next day. If the wait is longer than one hour, it must be reported to the dispatcher every hour. The dispatcher handles these downtime by telephone with the customer in order to speed up loading / unloading. The drivers' responses have shown that these efforts are, in most cases, negative. The customer does not give reasons for waiting for drivers but is unpleasant and reluctant.

All the drivers have already encountered technical problems - either solving them yourself (for example, replacing tires) or with a workshop that supplies spare parts and provides service. Employees of the service workshop are always willing, communication with them is trouble free - the driver informs you about the repair of the truck, the delivery time.

Regarding documents (transfer protocols), they did not have complications so far. On the contrary with traffic complications they encounter almost every day. This is congressional on roads and bypasses (using the EM Truck application). In case of any problems, it turns to other drivers or dispatchers to advise them and solve problems.

Drivers' communication takes place on several levels:

- with other drivers,
- with dispatchers,
- with warehouses of MD logistics,
- with warehouses in other businesses,
- with management (management).

With other drivers, communication is trouble-free, helping each other and meeting, communicating possible detours, and discussing forums. However, they complain about the lack of drivers and, for this reason, overtime work. Such payroll does not subsequently correspond to the wage according to the number of hours worked. Often they have long waiting times for loading / unloading, sometimes more than 12 hours, and these hours are not reimbursed. In the event of dissatisfaction, their queries are directed to business management or payroll accountants. With the dispatchers, 75% of the interviewees are in agreement. They get sufficient information about the destination or route change. These dispositions will be given to the driver well in advance, for example, the night before the next day of work. However, some drivers claim the opposite - they are not satisfied with the current state of driving planning, work is not distributed evenly (they report better and worse jobs, numbers of landings) and do not have information on what they are assigned to (for example, on the basis of sympathy). Sometimes it is difficult to get in touch with dispatchers at night (reaction time up to 1 hour is not sufficient in case of problems) and are often reluctant for various personal reasons (eg interrupted sleep disruption). MD logistics warehouses do not have driver problems. On the contrary, the warehouses of other companies yes - complaints relate to newcomers in warehouses, slow service and employee reluctance. In terms of communication with management, several drivers have complaints about it. Although they had been told a few times because of their lack of job satisfaction, and the leadership had leaped, nothing had changed. They know who to deal with and the fact that there is documentation about the complaint in the business, but they are already passive in this regard and think it's useless. Some drivers would like to set up trade unions, but so far there is insufficient interest. One of the questions also touched on the issue of remuneration. All drivers know that they can be cut off by a premium moving pay component. Examples include non-compliance with the route, non-contact dispatcher in case of waiting for loading / unloading for more than 1 hour, truck or documentation disorder, frequent accidents, overhead phone limit, pallets left over. The three drivers were already moving the movable wage component, others heard of the cuts only from colleagues. Such issues would be addressed directly by the company management (the transport manager) or the accounting department. The last two questions related to employee events organized by the company and contributing to charity work. All drivers are informed of some employee actions. Examples include free tickets for sports matches (for example, hockey in Pardubice), ZOO, Track Trial, gym, swimming pool in Litomyšl, cycling trips. Half of the respondents took part in the selected events, the other half has no interest in tickets or trips or does not allow them to work. They are familiar with the comments and suggestions box that is located in the lobby of the enterprise, but they have not put up with them for a personal reason, or because they have had the opportunity to comment on the questionnaire survey that took place in the company a year ago. Three quarters of drivers have heard that the company contributes to charity but does not recall a specific project. Most of them have no interest in co-deciding on the project

or designing a project to which it will contribute - the statement showed that management is doing well. At the end of the controlled interviews, the author told drivers that they were CSR issues. The interviewees did not know what to imagine, but some of them had already heard about this concept. Interestingly, about 50% of the interviewed drivers a year ago responded to the CSR questionnaire. Because the drivers in the logistics business are key employees [10], the author recommends MD logistics as follows (see Table 1).

Table 1. MD logistics recommendations resulting from interviews with drivers.

Recommendations	Realization
communicate CSR not only in company management but also at lower levels such as drivers (the importance of CSR communication is documented in [2])	transport managers or dispatchers will hold regular meetings once every 2 months and instructs the driver on the current state of CSR in the business
regularly train dispatchers to improve their communication skills	training of dispatchers by an external agency once a year
improve dispatcher response time at night	issue instructions on the availability of dispatchers - be on the phone from 22 to 1 and from 3 to 6 hours
ensure that dispatchers change the content of drivers' work so as to avoid stereotyping and work is distributed equally among all drivers	give drivers their personal cards, which will record their communication, willingness, speed, reliability, timeliness of coming to work, and displaying a list of drivers on the billboard so that everyone can keep track of their current status
continue to gradually renew the fleet, but to allocate new trucks to decide in the collective more people (transport managers and dispatchers) and learn the conclusions of all drivers	new cars to be allocated on the driver's personal card
consider adding a few extra days off for employees who are not interested in other non-financial benefits ([3] is one of the ways to keep staff satisfied, motivated and productive) as well as sick days	give drivers a choice - extra holidays or non-financial benefits, introduce 3 sick days a year
continue to regularly update EM Truck	work with an external IT company to ensure regular updates

5 CONCLUSIONS

Corporate Social Responsibility (CSR) is among the appreciated features of an advanced society. The balance between profit and social responsibility becomes a strong link between business leadership and employees. And if the business wants to succeed in competitive struggle, it will gradually be forced to reconcile its economic interests with social and environmental issues, because it can only maintain its profitability in the long term and become competitive.

The long-term financial success of businesses, as well as for described company MD logistics, is increasingly linked to corporate social responsibility and reporting. In the future, we can assume:

- the rapid development of modern technologies, which are increasingly demanding transparency (disclosure increases not only due to regulations, but also to better access to information and greater public interest);
- building consumer confidence through CSR activities,

- involving businesses in global challenges (education, environmental protection, health).

Sources

1. ARMSTRONG, M. Řízení lidských zdrojů: nejnovější trendy a postupy: 10. vydání. Praha: Grada, 2007. ISBN 978-80-247-1407-3.
2. DU, S., Bhattacharya, Ch. B., Sen, S. Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. International Journal of Management Reviews, 12.1: 8-19, 2010.
3. GARBER, P. R. 99 ways to keep employees happy, satisfied, motivated and productive. Old Saybrook, CT: Business & Legal Reports. Quik step guides for busy managers, 2004. ISBN 1-55645-197-0.
4. HENRIQUES, A., RICHARDSON, J. The triple bottom line, does it all add up?: assessing the sustainability of business and CSR. Sterling, VA: Earthscan, 2004. ISBN 1-84407-015-8.
5. JAKUBÍKOVÁ, D. Strategický marketing: strategie a trendy. 2., rozš. vyd. Praha: Grada. Expert (Grada), 2013. ISBN 978-80-247-4670-8.
6. KUNZ, V. Společenská odpovědnost firem. Praha: Grada. Expert (Grada), 2012. ISBN 978-80-247-3983-0.
7. LEE, S., SEO, Y. Corporate Social Responsibility Motive Attribution by Service Employees in the Parcel Logistics Industry as a Moderator between CSR Perception and Organizational Effectiveness. Sustainability [online]. 9(3), 2017, 355- [cit. 2017-11-20]. DOI: 10.3390/su9030355. ISSN 2071-1050.
8. PETŘÍKOVÁ, R. Společenská odpovědnost organizací. Ostrava: DTO CZ, 2008. ISBN 978-80-02-02099-8.
9. PIECYK, M. I., BJÖRKLUND, M. Logistics service providers and corporate social responsibility: sustainability reporting in the logistics industry. International Journal of Physical Distribution & Logistics Management [online]. 45(5), 459-485, 2015 [cit. 2017-11-20]. DOI: 10.1108/IJPDLM-08-2013-0228. ISSN 0960-0035. (2015).
10. RAMESHWAR, D., ANGAPPA, G., The role of truck driver on sustainable transportation and logistics, Industrial and Commercial Training, Vol. 47 Issue: 3, pp.127-134, 2015.
11. SHIN, Y., THAI, V., GREWAL, D. Do corporate sustainable management activities improve customer satisfaction, word of mouth intention and repurchase intention? Empirical evidence from the shipping industry. The International Journal of Logistics Management [online]. 28(2), 2017, 555-570 [cit. 2017-11-20]. DOI: 10.1108/IJLM-11-2015-0220. ISSN 0957-4093.
12. SHIRAEV, E., LEVY, D. A. Cross-cultural psychology: critical thinking and contemporary applications. 2nd ed. Boston: Pearson, 2004. ISBN 978-02-0538-612-3.
13. TRNKOVÁ, J. Společenská odpovědnost firem. Business Leaders Forum, 2004.
14. URBÁNEK, T., DENGLEROVÁ, D., Širůček, J. Psychometrika: měření v psychologii. Praha: Portál, 2011. ISBN 978-80-7367-836-4.
15. ZU, L. Corporate social responsibility, corporate restructuring and firm's performance: empirical evidence from Chinese enterprises. Berlin: Springer, 2009. ISBN 9783540708957.

Contact

Ing. Simona Činčalová, prof. Ing. Václav Cempírek, Ph.D.
University of Pardubice, Studentská 95, Pardubice, Czech Republic
Tel: +420 608 271 820, email: simona.cincalova@student.upce.cz

OPTIMIZING STRATEGIC DECISION MAKING BY DIGITALIZATION – AN LABORATORY EXPERIMENT

Steffen Hoßfeld

Abstract

This paper will discuss the advantage of decision making supported by a digital system and show an overview of an empiric study regarding this topic. Decision making in organizations is a main task of managers and a wide area in science, not only in management or business studies. Nowadays the trend of digitalization supports this typical management task to enable autonomous decisions. The paper will give a theoretical overview of decision making and digitalization at the beginning and then leading to the research question and model. The research method for the empiric part of this paper is a laboratory experiment, based on a case for a strategic investment decision. For the experiment a professor at university of applied sciences in Fulda was open to support the study. Two student groups (Bachelors and Masters) participated in this experiment, also to reflect a different experience level for it. Within these two groups, one part had digital support (laptop) and the peer group was deciding without digital support. The result was not too surprising, the group with digital support reached better results. As an eye opening effect, the master group with digital access outperformed the decision process, which means that experience and digital support in combination will deliver maximum utility.

Key words: *Digitalization, Decision Making*

1. INTRODUCTION

Today the megatrend of digitalization creates new challenges for businesses. These changing elements enforce organizations to reconsider their way of doing business, even to rethink their entire business model. Digitalization is today and will be in the future a key driver for change in organizations and in detail for the process how decisions will be made.

Consequently, the process how strategic decision are made, have to be analyzed. To understand the full logic and effects of digitalization a laboratory experiment, with a structured model and limited side effects in an observable environment, seems an approach for a high quality analysis.

In chapter 2 “Digitalization” the definition of digitalization and decision making will be given as the theoretical framework of this paper. In chapter 3 “Research question, hypothesis and research model” the fundamental research elements will be explained in detail. Chapter 4 “Empirical design and research methods” will explain the structure and the process of the laboratory experiment. Chapter 5 “Research Findings” analysis the data and outcome of the laboratory experiment. Finally in Chapter 6 ”Conclusions” will lead to expected but also surprisingly results of this research.

2. THEORY OF DIGITALIZATION & DECISION MAKING

2.1 Definition of Digitalization

“Digitalization refers to the practice of taking processes, content or objects that used to be primarily (or entirely) physical or analogue and transforming them to be primarily (or entirely) digital. The effect of digitizing processes, aside from potential efficiency gains, is to make processes more tailorable and malleable” (Fichman R., 2014). Not only based on data, moreover targeted on markets, organizations and processes digitalization will deploy its full

value to businesses and industries. The new era of digitalization has started already and shows today a first step of a new business world with a change in division of work. In the early 20th century a "computer" was an employee calculating tables the whole day. In a first step, an automated computer (as we understand today) took over this task and increased quality and efficiency of this process. Since then, the automation of our world was ongoing and influenced by computers and machines. Important for the development was the definition of rules for computers, because computers are perfect in following algorithmic rules. (Brynjolfsson E. and McAfee A., 2014). Further actions took place to develop more feasibilities of machines. Currently the speed of development is increasing, either the trend of "Industry 4.0" with full automation of the production flow (Zelinski P. 2016) or "artificial intelligence" that robots tend to make autonomous decisions and developed self-awareness and self-maintenance (Lee J. 2014) .
Important to understand is the logic of digitalization and to realize the 4 levers of transformation. These 4 levers have to be in scope of the decision maker (BDI, 2015):

Digital data (big data)
Due to recording, processing and analysis of mass data, high-quality and more predictable forecasts and decisions are possible in organizations. The structure of big data is (Goes P., 2014):

- Volume: measured in Giga- or Terabyte
- Velocity: One time snapshot frequency streams
- Variety: structured, numeric, alpha, unstructured, text, voice, sound, image, video, etc.
- Veracity: Validation, noise level, deception, detection, relevance, ranking

Big data is a huge trend in digitalization, because the usage of data is important for an organization. As "the economist" wrote in 2010, "Data are becoming the new raw material of business." And data are increasing day by day. A strong increase of data traffic had happened and will further increase; in the future driven by digitalization, e.g. machine to machine communication or the trend of mobile data from every user of the internet, this traffic will permanently increase.

Automation
The combination of traditional work and technology with artificial intelligence will enable autonomous work in self-organization systems with high quality and high efficiency. As an effect, production speed will increase and unit costs will drop. Automation has different aspects of realization. First, the work volumes between man and machine are changing. Second, the trend toward a higher automation is still ongoing, up to entire fully automated factories without human beings. A work flow from machine to machine without human interaction is today possible and works without variances. The third step, artificial intelligence, is a self-learning system, with a set of different reactions based on environmental conditions.

As an example, one new technological process is rapid manufacturing, which means that traditional production types will be replaced by new technology. This new technology uses directly digital data for production, without a tooling procedure. Cost intensive tools are replaced by new manufacturing applications. These procedures are very flexible on an acceptable cost level and permit small batches. 3D printers are today on a level beyond testing and started their usage in business. Different possibilities of 3D printing enable a wide range of applications. (Bopp F. 2010)

Integration

Through connection of the entire value chain by high quality broad band, this will enable synchronized supply chains with shorter production cycles and faster innovation cycles (mobile or fiber opic net).An important integration in the era of digitalization is a deeper collaboration in the entire supply chain. Based on a more flexible consumption behavior a more agile supply chain has to deliver this flexibility. As a result a strong inter-company collaboration is a must, and online information has to be exchanged between the different entities. The cross-linking of organizations and their IT systems are the requirement for an efficient supply chain. And today's technology enables this process, based on standard software tools and open interfaces for an optimal data exchange between them. A fast changing world, with a drop in product life cycles, the integration between supplier and customer has to be on the level of a partnership, because an inter-company product development process needs to have speed in "time to market" on a cooperative relationship. (Wannenwetsch H. 2007) .

Digital customer access

New competitors, new services and new transparency will increase competition and market position of companies and brands. For your customer the next competitor is just one click away, hence a well thought out strategy is necessary to position against your competitor, no matter from which industry he's coming from. For the car manufacturer BMW the competitor isn't anymore only Audi or Daimler, now it's Tesla and Google, with their autonomous driving car. (Brynjolfsson E. & McAfee A., 2014).The consumer and customer, is again back in the center of scope of organizations. In the recent years consumer behavior and hence customer activities changed dramatically toward a less loyal, more flexible and quick response relationship. Increased mobile services, e.g. via smart phone increased this trend, and Kreutzer/Land described the consumer buzzwords as follows: "me, all, immediately and everywhere"; which means:

Table 1 "Customer Expectation: Me, all, everywhere and immediately" (Kreutzer R. & Land KH. 2015)

Me	All	Everywhere	Immediately
Appreciation as must	Wide choice	Time independence	Instant contacting
(correct) Personalization	High quality	Location independence	Fast transactions
Tailored offers	Low prices	Independence of technologies, channels, devices	Short response time
Approach based on permissions	Good service		

The mentioned customer expectations are increasing, but in today's flexible world, this expectation is covered by competition, hence this has to be the mantra in an organization.

The trend of "smartization" is still ongoing and will further move on, making all devices via networks intelligent. Starting with mobile phones, developed to smart phones, now we see smart TVs and smart watches. Also housekeeping is going smart, with refrigerators or washing machines, even energy consumption is steered with smart technology. (Kreutzer R. & Land KH. 2015)

2.2 Definition of Decision Making

Decision theory is a wide area in science, with a long tradition. The first idea of decision theory reaches back over hundreds of years and is still relevant in the presence. Rational models were discussed from the neoclassical economists (e.g. Adam Smith or Max Weber) with a view on rational behaviour of agents which maximize their utility – the homo oeconomicus. A more scientific approach of Pascal and de Fermat shows a calculation of probabilities and Bernoulli laid the foundation of risk science by examining random events. Further developed by von Neumann/Morgenstern economic behaviour in a strong rational and mathematical approach, decision making follows utility maximization. Today's view of decision theory as an interdisciplinary science (economics, psychology, sociology, philosophy, mathematics, computer science and statistics) with different approaches is generally accepted (Buchanan L. and O'Connell A., 2006). One of the most popular is still the theory of games and economic behaviour (von Neumann J. and Morgenstern O., 1944). The theory of von Neumann/Morgenstern explains a rational behaviour of market participants (either consumers or entrepreneurs). Consumers strive for a maximum utility or satisfaction and entrepreneurs strive for maximum profits. Meanwhile a wide area of mathematical approaches and models of rational theories were further developed on the foundation of von Neumann/Morgenstern theories. The opposite of the rational view, is a behavioural view on decisions. In the late 1940ies Simon discussed the theory of bounded reality, which means a certain influence of human attitudes with not pure rational decisions (Simon H.A., 1997). A deeper view in the psychology science shows that theories on behavioural economy are currently quite popular, because human behaviour is one part of organizational actions. In the 70ies Kahneman/Tversky developed the prospect theory.

1. Rational View

In the classical field of the economical view on decision theory, a rational, mathematical founded approach is discussed. The process of pure calculating to find a maximum of utility or profit is a typical rational procedure. First of all an overview of the basic elements will enable a better view on the concept of a decision model. In figure 1 "Basic Elements of a Decision Model" the common structure of decision models is shown.

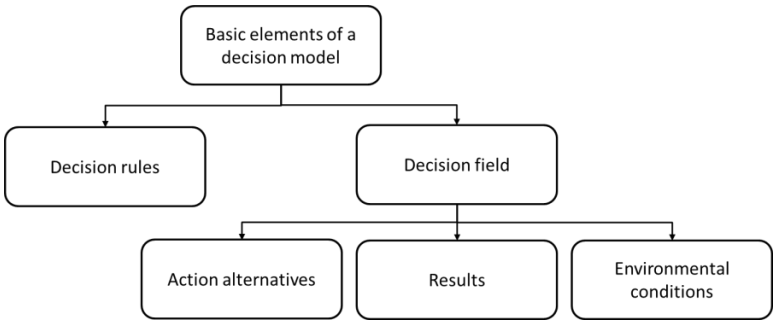


Fig. 1." Basic Elements of a Decision Model" (*based on Bamberg G., 2012)*

In the dimensions of decision fields the alternatives are very important to analyse. There is only a decision problem, if there are minimum two alternatives. Hence a determination of these alternatives must be reflected in the decision model. In the next step an evaluation of these alternatives must be done. These consequences will lead to a result of the alternatives into the decision model. Important figures of the decision maker are defined as targets, these values are the result. (Laux H., 2014).

Key for a structured process the environmental conditions are very important. Measures are not manipulable by the decision maker, these measures are called decision relevant data. These data are no variables of the decision maker. These characteristics are decision relevant environmental conditions. The illustration of figure 2 "Structures of Environmental Conditions" (Laux H., 2014) shows different environmental situations and a possibility of designing decision conditions.

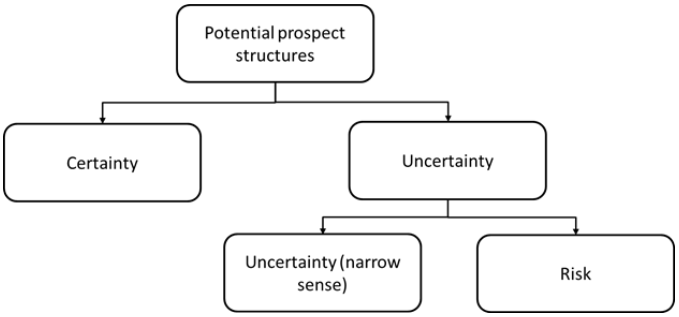


Fig. 2. Structures of Environmental Conditions (*based on Bamberg G., 2012)*

A decision structure under certainty means, that the decision maker has the real condition of the alternatives, hence all relevant information for the decision are given. Therefore the result is known and alternatives are certain. In reality quite often decision models are formed as models of decision under certainty, because the set up and the usage of this model type is easier to handle (Bamberg G., 2012).
A decision structure under uncertainty means, that the decision maker has minimum two possible alternatives, but not all relevant information for a decision are given. Therefore the result is not known and alternatives are uncertain. In the case of uncertainty there are two more possibilities. Either for the decision maker it's not possible to calculate a likelihood of conditions (uncertainty – narrow sense) or for the decision maker the probability of occurrence of a condition is computable (risk); (Laux H., 2014).
This differentiation of the environmental conditions is important to define; especially decision making in the context of globalization and digitalization. While globalization creates more complexity and uncertainty, a more sophisticated model for decision making is a need for an organization. In terms of digitalization a need for an algorithmic structures, computers need a mathematical logic to calculate a result for a decision process.

2. Human View

Important developments in decision theory took place over the recent decades, though a trend to a behavioural approach was supported by psychological science. An outstanding contribution to the development of behavioural economies was made by Kahneman and Tversky. A collection of their scientific contribution and analysis is made in the book "Thinking, Fast and Slow" (Kahneman D., 2011). Describing decision theory with a strong psychological view makes decision more emotional than rational. Depending on the activated system in the mind; Kahneman named it system 1 and system 2. "System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control" (Kahneman D., 2011) Examples: answer of 2 + 2 =?; Drive on an empty road, orient the source of a sudden sound. "System 2 allocates attention to the effortful mental activities that demand it, including complex computations. The operations of system 2 are often associated with the subjective experience of agency, choice, and concentration." Examples are to tell someone your mobile number or fill out a form. (Kahneman D., 2011)

The human structure is based on usage of system 1, only if really necessary, system 2 is activated.This concept of system 1 and system 2 set the basis for a human behaviour of decision making, which absolutely defers from a rational decision view. Continuing this idea, the question what prevents a rational decision should be answered with Kahneman/Tversky's prospect theory. The fact that lot of decisions have both elements, a risk of loss and an opportunity of gain, effects a decision to gamble or to deny. Focussing on loss aversion (Kahnemann D. and Tversky A., 1974) means, people avoid losses while there is a huge opportunity to gain this particular option. As a result people deny this option and this is controversial to a rational choice, with a pure calculation of probability. On the other hand the "optimistic bias" means that chances for success are overestimated. Risks are undervalued or not in scope of the decision maker (Kahneman D., 2011).
The concept of loss aversion explains the following conditions:

- The psychological value of gains and losses as carriers of values (as opposite Bernoulli stated wealth as carrier of value)
- Reduced sensitivity for gains and losses
- The response to losses is stronger than the response to corresponding gains (loss aversion)
- The two curves of the S are not symmetrical

Prospect theory is only one topic raised in the context of behavioural decision making. Further effects were discussed from Kahneman/Tversky, e.g. adjustments, anchoring etc.

3. RESEARCH QUESTION; HYPOTHESIS & RESEARCH MODEL

Taking the described topic into scientific context, the research question is asking for a relationship between an intelligent digital setup for decision making and the quality of the strategic decisions. The intelligent digital setup means a well customized system for an organization which enables an efficient process, for the dedicated organization. The type of customizing has to respect the structure of the organization, e.g. the industry, customers and the organizational set up, because every single organization has its own perfect fit into a competitive environment. A digital setup means all organization's procedures are transferred into a digital context, either fully digital in machines or executed by a cyber physical system. The quality of the strategic decision has to be taken into context to the origin of the decision, in the analogue environment. A profit improvement is not necessarily an indicator for a quality increase of a strategic decision, because not all strategic decisions are directly linked to profit increase, because in a strategic context the long term scope is essential. The main hypothesis of this paper will analyze the dependency of the efficiency of strategic decisions and the digital set up for decision making in organizations (H0).

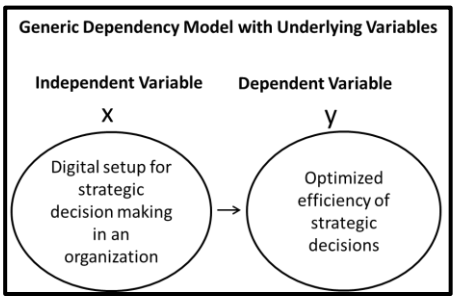


Figure 3. Generic Model of Digital Setup for Optimized Decision Making (designed by the author)

The generic dependency model with the relevant variables is displayed in figure 3 as basic strucutre for the subsequent research model. Based on the generic model, which has to be

seen as an open model for various business cases, a more detailed model will be shown later. In the generic model the independent variable "x" is the mathematical representative for "digital set up for strategic decision making in an organization" and the dependent variable "y" is the mathematical representative for "optimized efficiency of strategic decisions". To set the variables into relation, the following expression will be proved on validity:

The more intelligent the digital setup for decision making of an organization, the better the quality of strategic decisions.
The more human (manual) procedures for decision making of an organization, the worse is the quality of strategic decisions.

The research model for this paper is based on the above mentioned generic model. A strategic investment decision case will be analyzed on its dependency between the variables of "digital setup for strategic decision making in an organization" and "optimized efficiency of strategic decisions". The different values of the variables itself are quite interesting, but also the dependency of the variables.

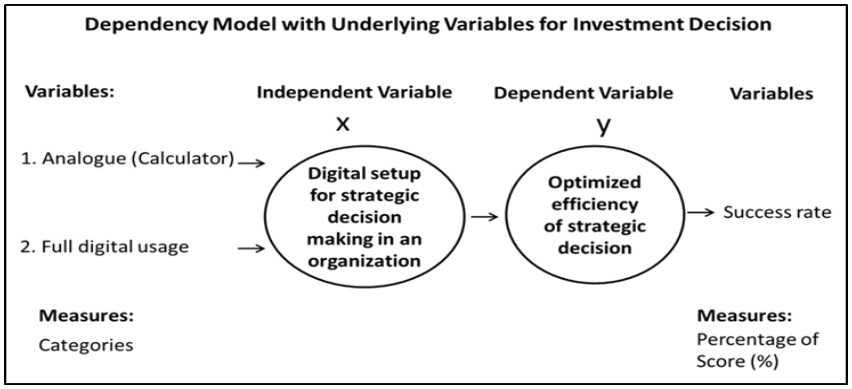


Figure 4. Dependency Model with Underlying Variables for a Strategic Investment Decision (designed by the author)

3. EMPIRICAL DESIGN & RESEARCH METHODS

As mentioned the research methodology of this paper is a laboratory experiment. The investment case itself is a decision making exercise, based on three different machine options with different prices and performance indicators (a to c). As calculation approach the profit comparison method was recommended and part of the decision process. Furthermore three different scenarios had to be taken into consideration for the final decision. The first was the basic case, the second one had a different sales volume and the third one a different cost structure. Participants had been students from university of applied sciences in Fulda, Germany included Bachelor and Master students. Inside these groups there had been two different subgroups, one only with a hand calculator and the other with a laptop and additional access to digital data. The idea was to simulate a real environment, because using digital features means, that the availability of data will increase. The time for this exercise was limited to 20 minutes for all groups. In total 119 students participated in this experiment.

4. RESEARCH FINDINGS

Table 2 "Distribution of Laboratory Experiment Participants"

	Bachelor	**Master**
Laptop	17	35
Hand Calculator	28	39
Total	45	74

The distribution of the participants is important for the analysis of the experiment and the statistical quality, as displayed in table 2. To analyze is the individual result of each student per question, as shown in figure 5, was interesting for further results. Some students really earned 0 points in the three questions and some only 10 points. A few got additional points, because the calculation was correct, not only the decision (Table 3).

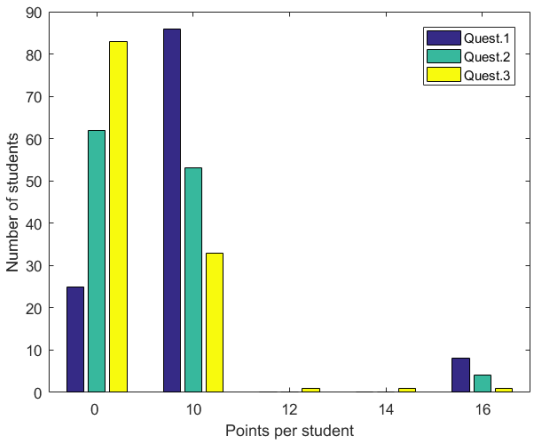


Figure 5 “Points per Student”

Table 3 “Statistical Analysis of Results”

	Q1	**Q2**	**Q3**
Max	16	16	16
Mean	8.3025	4.9916	3.1261
Min	0	0	0
Median	10	0	0
Mode	10	0	0

Since the notches in the box plot do not overlap, you can conclude, with 95% confidence, that the true medians do differ. The diamond indicates the mean, the red line the median. The box indicates the interquartile range. The whiskers the minimum and maximum values.
The T-Test shows that the average points using laptop versus using hand calculator are statistically significant.

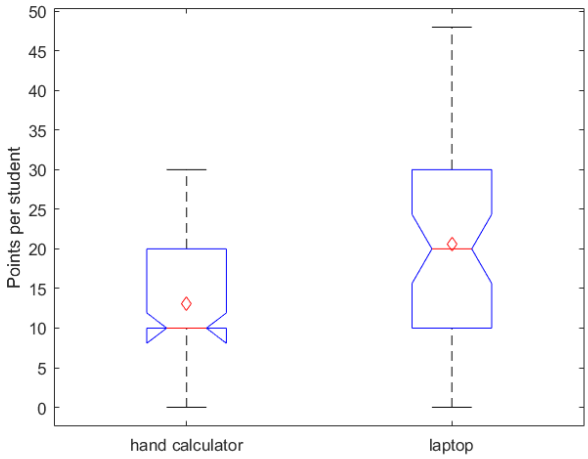


Figure 6 “Points per Group Hand Calculator/Laptop”

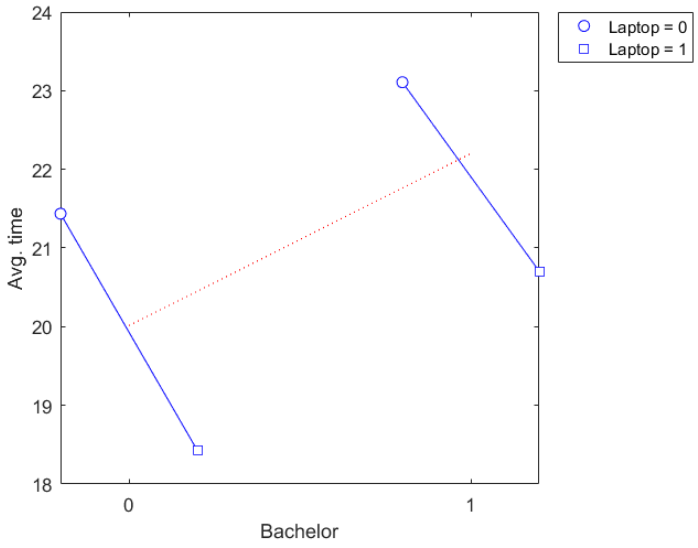


Figure 7 “Interaction Plot”

The interaction plot of figure 7 shows that bachelor degree and laptop are interacting. Most points are achieved for master students using laptop.

5. CONCLUSION

The relevance of digitalization effects on decision making is important and confirmed in the laboratory experiment at university of applied sciences in Fulda. The empiric research of this paper shows, that usage of digital features make organizations more efficient. The influence of digitalization on decision making is obvious in the results. As an eye opening outcome, the combination of qualification and usage of digital equipment is significant. To conclude on this result, skilled employees with the right digital environment will lead to high efficiency in an organization. Organizations may not only focus on the technical aspect of digitalization, furthermore the development of people has the similar importance.

Finally, digitalization has to be on the agenda of every organization to reach efficiency in a competitive environment. But this is not simple a technological approach, at the end, the focus should be still on people, whose have to be the key driver for this step change in business.

Sources

1. BAMBERG G. & COENENBERG A. & KRAPP M., 2012. Betriebswirtschaftliche Entscheidungslehre. München: Verlag Franz Vahlen
2. BAUER W. & HÄMMERLE M. & SCHLUND S. & VOCKE C., 2015. Transforming to a hyper-connected society and economy – towards an “Industry 4.0”. Science direct, Procedia Manufacturing 3 (2015) 417 – 424, Elsevier
3. BDI Research. 2015. Die digitale Transformation der Industrie; BDI – Bundesverband der deutschen Industrie
4. BOPP F. 2010. Rapid Manufacturing: Zukünftige Wertschöpfungsmodelle durch generative Fertigungsverfahren. Hamburg; Diplomica Verlag
5. BRYNJOLFSSON E. & MCAFEE A., 2014. The Second Machine Age. New York: W.W. Norton & Company
6. CHIU C. 2014. What can crowdsourcing do for decision support? Decision Support Systems 65 (2014) 40 – 49; Elsevier
7. COLLIN J., 2015. IT Leadership in Transition - The Impact of Digitalization on Finnish Organizations. Helsinki: Science & Technology

8. Fichman R. & Dos Santos B. & Zheng Z., 06/2014. Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum. MIS Quarterly Vol. 38 No. 2, pp. 329-353
9. GOES P. 07/2014. Big Data and IS Research. MIS Quarterly Vol. 38 No. 3, pp. 3-8
10. KAHNEMAN D., 2011. Thinking, Fast and Slow. UK: Penguin Random House
11. KAHNEMAN D. & TVERSKY A., 1974. Judgment Under Uncertainty: Heuristics and Biases. Science, New Series, Vol. 184
12. KREUTZER R. & LAND K.H. 2015. Digital Darwinism – Branding and Business Models in Jeopardy. Berlin. Springer Verlag
13. LAUX H. & GILLENKIRCH R. & SCHENK-MATHES H., 2014. Entscheidungstheorie. Berlin; Heidelberg: Springer Verlag
14. LEE J. & KAO H. & YANG S., 2014. Service innovation and smart analytics for Industry 4.0 and big data Environment. Science direct, Procedia CIRP 16 (2014) 3 – 8: Elsevier
15. MARCH J. & SIMON H.A., 1997. Organizations. Cambrigde and Oxford: Blackwell
16. NEUMANN VON, J. & MORGENSTERN O., 1944. Theory of Games and Economic Behaviour. Princeton: University Press
17. PICOT A. & REICHWALD R. & WIGAND R. 2001. Die grenzenlose Unternehmung. München. Gabler Verlag
18. SIMON H.A., 1997. Administrative Behaviour. New York: The Free Press
19. SPATH D., 2013. Produktionsarbeit der Zukunft – Industrie 4.0. Fraunhofer IAO; Stuttgart, Fraunhofer IRB-Verlag,
20. WANNENWETSCH H. 2007. Integrierte Materialwirtschaft und Logistik. Neustadt: Springer Verlag
21. WESTERMAN G. & BONNET D. & MCAFEE A., 2014. Leading Digital. Boston: Harvard Business School Publishing
22. ZELINSKI P., 02/2016. Where 4.0 Might Go. [Online] http://www.mmsonline.com/ [Accessed 10.04.2016]

Contact

Steffen Hoßfeld, MBA
University of Latvia, Riga
Am Sand 7, 36137 Großenlüder, Germany
Tel: +491754145906
email: shossfeld@web.de

ROLE VLASTNÍKA FIRMY PŘI UTVÁŘENÍ A ROZVOJI ORGANIZAČNÍ KULTURY

THE ROLE OF THE OWNER OF THE COMPANY IN ORGANIZATION AND DEVELOPMENT OF ORGANIZATIONAL CULTURE

Darina Vážanská

Abstrakt

Organizační kultura je v současné době jedno z nejvíce diskutovaných témat a na toto téma byla napsána řada publikací. Organizační kultura firmy je v jednoduché formulaci to, co je pro danou společnost typické a to, co danou společnost charakterizuje. Projevy organizační kultury, ale může zaměstnanec firmy pociťovat různě. Tzn., že pro zaměstnance, který pracoval po řadu let pro velkou korporátní společnost je samozřejmostí sdílet v rámci organizace hodnoty, postoje a normy chování. V menších rodinných firmách je tomu jinak. Rozdílné projevy organizační kultury závisí nejen na velikosti firmy, ale také na síle organizační kultury. Zatímco síla organizační kultury v menších firmách je určována především sílou osobnosti vlastníka firmy, ve velkých společnostech je organizační kultura tvořena řadou subkultur, které se utváří ve společnosti v podstatě přirozeně.

Klíčová slova: *organizační kultura, síla organizační kultury, velká společnost, malá rodinná firma, zaměstnanci, vlastníci, subkultura*

Abstract

The organizational culture is one of the most discussed topics at present. The organizational culture of a firm is something what is typical for a certain firm and what is able to characterize it. The employee can feel the manifestations of organizational culture differently. The organizational culture can be different in a large company and in a small family firm. A lot depends on a size. In small firms a great influence is in a personality of it´s owner, in large companies is in a personality of it´s owner. In large companies there are a lot of subcultures which form it´s nature.

Key words: *the organizational culture, the power of organizational culture, the large corporate company, the small family company, employees, owner of the company*

1 ORGANIZAČNÍ KULTURA - SÍLA A PROJEVY

Organizační kulturu lze definovat jak uvádí Lukášová, Nový jako soubor základních předpokladů, hodnot, postojů a norem chování, které jsou sdíleny v rámci organizace, které se projevují v myšlení, cítění a chování členů organizace a v artefaktech (výtvorech) materiální a nemateriální povahy.

Sílou organizační kultury se rozumí, nakolik jsou dané předpoklady, hodnoty, normy a z nich vyplývající vzorce chování v organizaci sdíleny. Jsou-li sdíleny ve vysoké míře, je organizační kultura silná a výrazným způsobem ovlivňuje fungování organizace. Je-li organizační kultura slabá, znamená to, že členové organizace sdílejí společné předpoklady, hodnoty a normy chování naopak, jen v malé míře.

Organizační kultury si osvojujeme, když vstupujeme do zaměstnání v organizacích jako mladí nebo již ne tak mladí dospělí a kdy jsou naše hodnoty již upevněny. Organizační kultury pozůstávají převážně z praktik a jsou více na povrchu.

Projevy organizační kultury může zaměstnanec pociťovat různě. Pro zaměstnance, který pracoval řadu let pro korporátní společnost, je samozřejmostí sdílet v rámci organizace hodnoty, postoje a normy chování. Tato organizační kultura je tvořena řadou subkultur, které se utváří ve velké společnosti v podstatě přirozeně. Obvykle se jedná o velmi silnou organizační kulturu. V menších rodinných firmách je tomu jinak. Organizační kultura je určována především tím, jak silnou osobností vlastník malé firmy je. Pro zaměstnance může být přechod z velké společnosti do malé rodinné firmy z toho důvodu mnohdy složitý.

2 ROLE VLASTNÍKA FIRMY PŘI UTVÁŘENÍ ORGANIZAČNÍ KULTURY

Snem každého podnikatele je vybudovat a řídit úspěšnou a prosperující firmu. Ale co když je prosperující firma řízena spíše vlastními zaměstnanci?

Řada majitelů zavedených menších firem si od prvopočátku svého podnikání osvojila nesprávné návyky při řízení firmy. Časté absence a nedostupnost majitelů firem vede k tomu, že řízení firmy uchopí do rukou jejich vlastní zaměstnanci. V mnoha případech obchody běží, tak jak mají, ale tzv. manažerská nedisciplinovanost majitele firmy vždy v určité fázi vývoje společnosti dostihne. Ať je to ve formě nespokojenosti nebo vleklých neshod mezi zaměstnanci z důvodu nejasností v oblasti odpovědnosti a pravomocí až po nespokojenost na straně zákazníka.

Obvykle jsou majitelé těchto firem obchodně velmi zdatní. Vyjednávání s klienty či investory v průběhu svého podnikání vypracovali na profesionální úroveň, nedostatky jsou však nejen v plnění manažerských povinností, ale hlavně v organizaci svého pracovního času. S růstem ziskovosti vlastníci firem věnují více svého času spíše soukromým aktivitám a ten pracovně - manažerský čas se zužuje na minimální úroveň.
Podnikové klima se pak vlivem neustálé absence majitele a ředitele v jedné osobě mění v jeden neřízený a dlouhodobě neudržitelný stav, který může negativně ovlivnit výkonnost celé firmy.

2.1 Jakou má roli vlastník firmy při utváření a rozvoji organizační kultury?

Jak uvádí ve své publikaci Lukášová, Nový , role vůdců a zakladatelů organizace je při utváření organizační kultury zcela unikátní. Zakladatelé organizací mívají, jak zjistil svými výzkumy Schein (1992), jasnu vizi a silné vyhraněné základní předpoklady a hodnoty. Ty výrazně determinují obsah kultury zejména v počátečním období existence organizace.

2.2 Jak zaměstnanci utvářejí organizační kulturu?

Organizační kultura by měla být tvořena odshora, tedy v případě malých firem by měla být vytvářena vlastníky. Jestliže se majitel nesoustředí na dění ve firmě a na posilování organizační kultury, iniciativu v oblasti organizování procesů a v oblasti pravomocí snadno přebírají sebevědomí a ambiciózní zaměstnanci, kteří si uvědomují, že jsou v situaci, která jim umožní využít ji k vlastnímu prospěchu.

Jestliže nejsou jasně definované odpovědnosti a pravomoci někteří, aniž by k tomu byli oprávněni, přebírají dobrovolně část pravomocí za vlastníka podniku. Situace ve firmě se může ještě zhoršit tím, že zaměstnanci si navzájem delegují své úkoly, organizují čas svých

kolegů a vyjadřují se k záležitostem, které jim nenáleží, což vede k vzájemné nesnášenlivosti a ovlivňuje to vztahy na pracovišti.

V takovém prostředí si zaměstnanci obvykle plní své pracovní povinnosti, ale suplování činností majitele firmy od uzavírání smluv, přes účast na výběrových řízeních a vyjednávání obchodních podmínek až po vlastní realizaci zakázky vyžaduje určitou míru organizovanosti i pro ty sebevědomé a ambiciózní zaměstnance.

3 ZMĚNA ORGANIZAČNÍ KULTURY PROSTŘEDNICTVÍM TZV. SKALNÍCH ZAMĚSTNANCŮ

Organizační kultura ovlivňuje úspěšnost a výkonnost organizace. Základem úspěchu jsou kvalitní pracovní podmínky, které jsou podmíněny tím, že v pracovních pozicích jsou jasně vymezené role s definovanými popisy práce. Malé firmy respektive jejich vlastníci na to obvykle hřeší. Absence popisů práce, odpovědností a pravomocí je pro malé firmy typická. Vlastníci malých firem nepovažují za důležité věnovat čas na zkvalitnění pracovních podmínek pro zaměstnance, na zlepšení procesů ve firmě a na posilování organizační kultury.

Ve své publikaci uvádí Lukášová, Nový, že při zakládání organizace získají zakladatelé pro svou vizi několik dalších lidí, kteří uvěří, že idea zakladatele je dobrá a realizovatelná a že stojí za to investovat do ní peníze, čas a energii. Počáteční skupinka, sdílející vizi zakladatele, začne jeho záměry realizovat. V průběhu realizace musí ovšem překonávat problémy.

Když se zaměříme na zaměstnance, kteří uvěřili, že idea zakladatele je dobrá a realizovatelná i přesto, že prostředí organizace není vůči zaměstnancům příliš příznivé. Právě tito skalní zaměstnanci představují nejen pro firmu, ale také pro vlastníka - jednatele, který si osvojil nesprávné návyk při řízení, možný zdroj zlepšení procesů a posílení firemní kultury.

Zdrojem výhody tohoto zaměstnance či skupiny zaměstnanců je znalost firemního prostředí, ale také dlouholetá spolupráce s majitelem – jednatelem firmy v jedné osobě. Tento klíčový zaměstnanec či skupina zaměstnanců jsou schopni nevlídné firemní klima, v němž převládá neuspořádanost a chaos, změnit v ucelený a dlouhodobě funkční systém. Tento proces je samozřejmě možný pouze za podpory majitele firmy, což může být v daném případě velmi složité a zdlouhavé.

Je nutné zdůraznit, že klíčový zaměstnanec musí být silná a dominantní osobnost, která je schopna nejen komunikovat se zaměstnanci a vybudovat si u nich respekt, ale zároveň musí být skvělý vyjednávač.

3.1 Postup při zajištění stabilního firemního prostředí v malé firmě

Nejdříve je nutná stabilizace klíčových a schopných zaměstnanců a zaměřit se na snížení jejich fluktuace. V mnoha malých firmách stačí, když se nastaví jasná pravidla respektive procesy včetně vymezení odpovědností a pravomocí. Vyřeší se tak problém s přeposíláním dotazů od jednoho zaměstnance k druhému a zabrání se tak situaci, že přeposílaný email se autorovi vrátí nedořešený zpět. V téhle fázi není nutno majitele firmy příliš zapojovat, protože ho bohužel nezajímá jakou činnost ten či onen zaměstnanec vykonává. Zajímá ho pouze výsledek.

Druhým krokem je vzájemně si naslouchat a komunikovat. Informovat zaměstnance o dění ve firmě. V tomto kroku je nutné zapojit i majitele firmy. Odjezd na dovolenou již pro majitele

bude znamenat, předat všechny informace, ať už o rozjednaných obchodech, jednáních s dodavateli až po plánované investice.

Třetím krokem je zaměřit se na oblast řízení lidských zdrojů, která je vlastníky často opomíjená. Převážná část malých firem nepovažuje oblast řízení lidských zdrojů za důležitou. Co je pro větší firmy samozřejmostí, nemusí platit pro malé firmy.
Je nutné se zaměřit na popisy práce, zastupitelnost a nastavení či rozvržení pracovní doby. Popisy práce obvykle chybí a pracovní dobu mají zaměstnanci na obdobných pozicích určenou jinak. Konečným cílem by mělo být zpracování strategie v oblasti lidských zdrojů.

4 ZÁVĚR

Pokud je majitel pravidelně a trvale nepřítomen ve své firmě, vidím jedinou možnost v přítomnosti „jedné osoby“, která je ve firmě denně a sleduje její činnosti. Když však i ta selže, z prosperující firmy se může stát firma nefungující. Z toho všeho plyne pro každého vlastníka firmy, ať je sebevíc úspěšnější a nechce nikomu předat vedení firmy, musí do své firmy docházet i nečekaně a zaměřit se na klíčové úkoly a zaměstnance.

Ať se mnou čtenář souhlasí nebo ne, tento poznatek jsem získala při své práci v několika malých a středních firmách v průběhu 15 let a musím konstatovat, že situace byla ve všech firmách obdobná.

Použitá literatura

1. Lukášová, R., Nový, I. a kolektiv, *Organizační kultura. Od sdílených hodnot a cílů k vyšší výkonnosti podniku.* Grada Publishing, a.s., 2004, 22,32 s, ISBN 80-247-0648-2
2. Hofstede, G., Hofstede G. J., *Kultury a organizace*: *Software lidské mysli.* 1. vydání. Linde nakladatelství, s.r.o., 2007, strana, ISBN 80-86131-70-X

Kontaktní údaje

Ing. Darina Vážanská
Hornická 839/17, Havířov - Suchá
Tel: 605 124 532
email: darina.vazanska@seznam.cz

OKRUŽNÍ DOPRAVNÍ PROBLÉM POHLEDEM STATISTIKY

CIRKULAR TRANSPORT PROBLEM BY STATISTICS

Josef Košťálek

Abstrakt

Příspěvek se snaží zkoumat statistické zákonitosti Okružního dopravního problému (jinak nazývaného Problém obchodního cestujícího). Popisuje experimenty náhodně generovaných bodů, ze kterých jsou určovány optimální trasy, tím jsou zjištěny jejich délky a ty jsou předmětem statistických testů. Příspěvek popisuje, že se v různých situací podařilo potvrdit, že délka optimální trasy je náhodnou veličinou s normálním (Gaussovým) rozdělením. Význam spočívá v možnostech provádět odhad délky trasy ještě před tím, než bude optimální trasa určena. V logistické praxi opakujících se rozvážky na jiná místa, ale při přibližně stejných počtech bodů je možné odhadnout délku trasy, ještě před jejím určením.

Klíčová slova: *rozdělení pravděpodobnosti, náhodná veličina velikosti optimální trasy, střední hodnota náhodné veličiny, rozptyl náhodné veličiny*

Abstract

This paper attempts to examine the statistical rules of the Circular Transport Problem (otherwise called the Traveling Salesman Problem). Describes experiments of randomly generated points from which optimal paths are determined, thus their lengths are determined and they are subject to statistical tests. The paper describes that in various situations it was confirmed that the length of the optimal route is a random variable with a normal (Gaussian) probability distribution. The importance lies in the ability to estimate the length of the route before the optimal route is determined. In the logistics practice of repeating transfers to other locations, but with approximately the same number of points, it is possible to estimate the length of the route before it is determined.

Key words: *probability distribution, random magnitude of optimal route size, mean value of random quantity, variance of random quantity*

1 ÚVOD

Příspěvek je teoretické povahy. Jeho cílem je provedení několika statistických analýz a testů za účelem zmapování a popsání některých jevů a zákonitostí, které najdou aplikaci v hledání řešení okružního dopravního problému pomocí heuristických metod.

Okružní dopravní problém (ODP) je synonymem pro Problém obchodního cestujícího, což je označení známého matematického kombinatorického problému, který umíme řešit, ale matematici po celém světě hledají efektivní „dokonalý“ algoritmus řešící tento problém. Hledání tohoto algoritmu je spojenou s otázkou P versus NP a jedná se o jeden z největších problémů matematiky (vedle např. Riemannovi hypotézi), za vyřešení tohoto problému vypsal Clayův matematický institut odměna 1 milion USD ([4.], cit. 11. 12. 2017) a ([2], s. 23).

Okružní dopravní problém je vysoce zajímavým matematickým problémem a tento článek na něj nahlíží prizmatem statistiky. Kde je provedena určitá abstrakce odhlížející od konkrétních bodů, ale pracuje se zde s náhodně vygenerovanými polohami bodů v rovině, maticemi jejich vzájemných vzdáleností, výpočty optimálních tras (nejkratších možných okruhů spojujících tyto body) a zejména se statistickým pozorováním délek těchto optimálních tras. Jak bylo

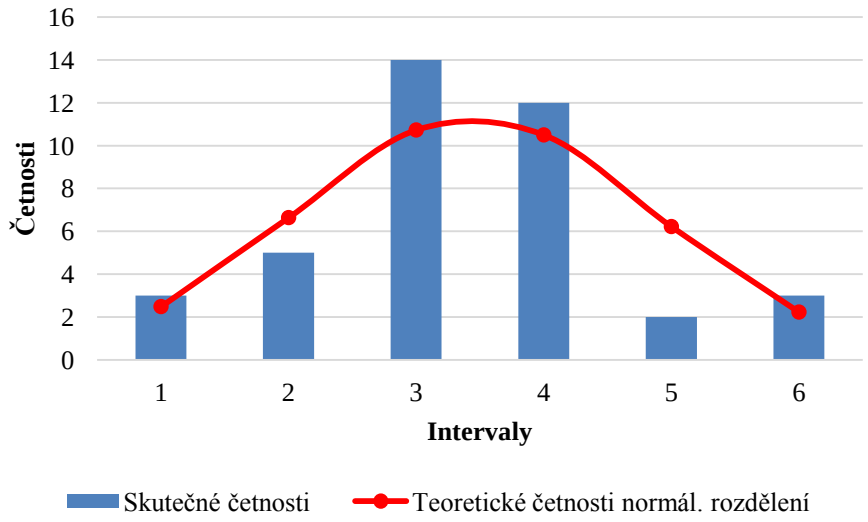
zmíněno dosažené výsledky jsou základním výzkumem s aplikací pro zdokonalování heuristických algoritmů.

2 GENEROVÁNÍ NÁHODNÝCH ÚLOH A STATISTIC. ANALÝZA VÝSLEDKŮ

Pro získání potřebných dat používaných v tomto článku byl použit MS Excel, ve kterém byl sestaven model pro řešení problému se šesti místy výpočtem všech kombinací (konkrétně 120 permutací), ze kterých je vybrána její minimální hodnota (optimální trasa). Pro situace s deseti místy byl použit nástroj řešitel a pro rozsahy nad deset míst byl použit specializovaný optimalizační systém Lingo.

První pokus jsem provedl tak, že jsem získal délky 40 optimálních tras. Trasy byly vypočítány pro 6 náhodně generovaných bodů. Těchto 40 údajů jsem statisticky setřídil do šesti intervalů a ověřil zda mají údaje normální (Gaussovo) rozdělení, byl použit Kolmogorovův-Smirnovův test.

Graf 1: Vyrovnání délek optimálních tras teoretickými hodnotami normálního rozdělení



Zdroj: vlastní

Statistický test na hladině významnosti alfa rovné 5 % prokázal, že délky optimálních tras pro 40 náhodně zvolených pozic bodů měly normální rozdělení, resp. nezamítl nulovou hypotézu. Vztah 1 popisuje výpočet testovacího kritéria a vztah 2 výpočet kritické hodnoty.

$$D = \frac{1}{n}\max\left|N_i - N_{i-teor.}\right| = 0{,}091 \tag{1}$$

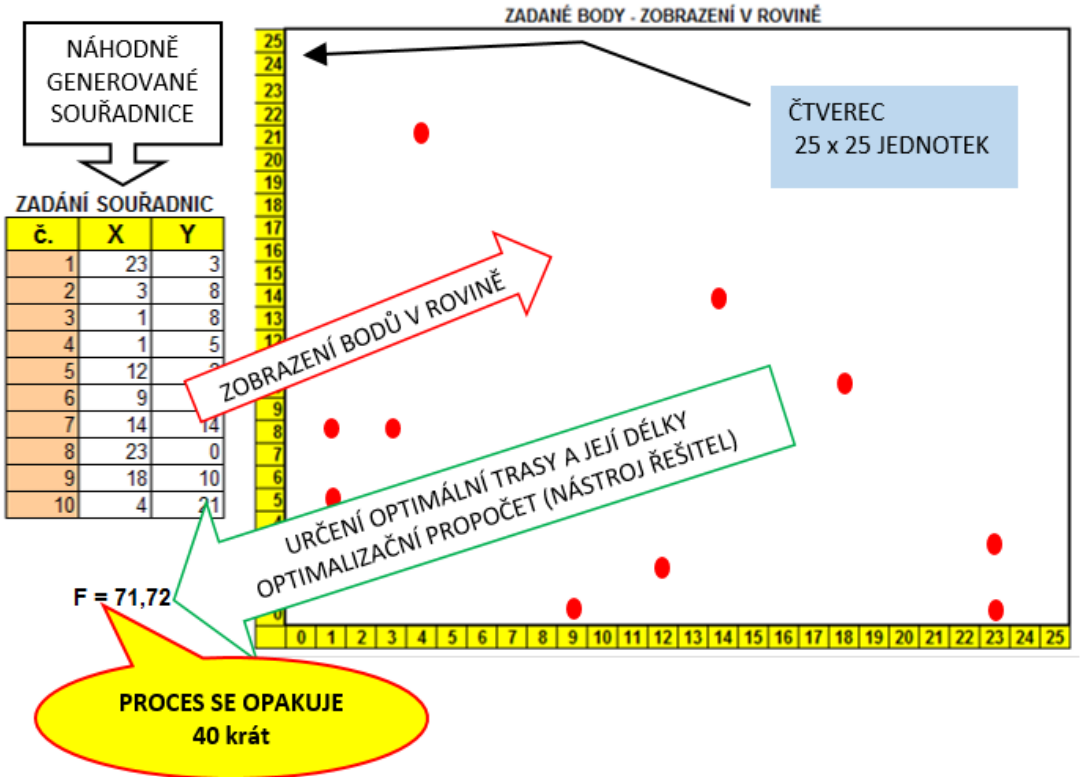
$$D_{(40;\,0{,}95)} = \frac{1{,}36}{\sqrt{n}} = 0{,}22 \tag{2}$$

Nyní lze konstatovat, že délka optimální trasy je náhodnou veličinou podléhající normálnímu rozdělení s parametry: střední hodnota $\mu = 62{,}42$ a směrodatná odchylka $\sigma = 7{,}44$. Jedná se o trasu plánovanou v prostoru čtverce o straně 25 jednotek, kam bylo vždy náhodně umístěno 6 bodů ([1], s. 98).

V dalším kroku jsem tento pokus zopakoval, ale zvýšil jsem počet náhodně generovaných bodů na 10 a jedná se o to ověřit, zda pro vyšší počet bodů bude opět platit, že délky

optimálních tras jsou náhodné veličiny podléhající normálnímu rozdělení. Tuto hypotézu se mi podařilo ověřit.

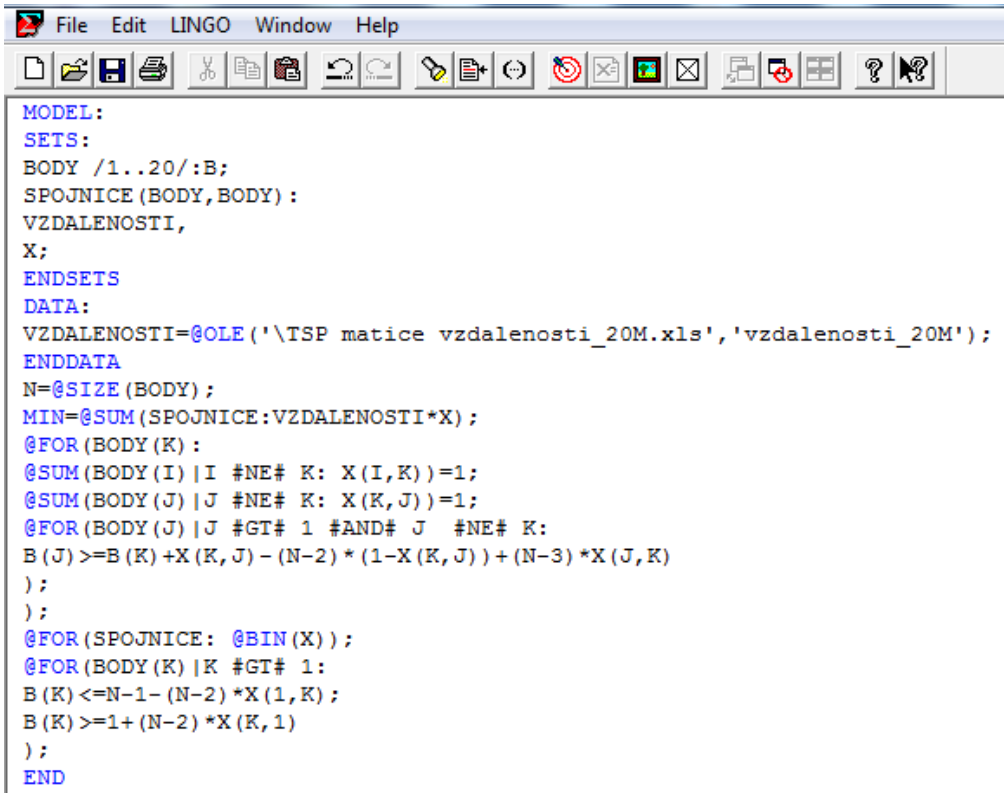
Obrázek 1: Proces získávání hodnot



Zdroj: vlastní

A konečně třetí pokus principiálně vycházel z postupu na obrázku 1, ale počet bodů byl navýšen na 20 a velikost čtverce, ve kterém byly generovány náhodné body byl rozšířen na rozměry 200 x 200 jednotek. Čtyřicetkrát byly vygenerovány náhodné souřadnice vždy pro 20 bodů. Pro tyto body byla 40 krát vypočítána optimální trasa a její délka, zde byl použit optimalizační SW Lingo. Opět se podařilo potvrdit hypotézu, že délky optimálních tras jsou náhodnou veličinou řídící se normálním rozdělením.

Obrázek 2: Ukázka řešení ODP s 20-ti místy v SW Lingo



Zdroj: vlastní

3 VÝSLEDKY STATISTICKÝCH ANALÝZ

Tabulka 1 shrnuje výsledky dosažené experimentem, zaznamenává parametry normálního (Gaussova) rozdělení v závislosti na počtech bodů a velikosti čtverce, ze kterého byly body náhodně generovány.

Tabulka 1: Výsledky statistických analýz

Počet bodů	Velikost čtverce	Střední hodnota μ	Směrodatná odchylka σ
6	25 x 25	62,42	7,44
10	25 x 25	75,06	11,65
20	200 x 200	561,89	60,17

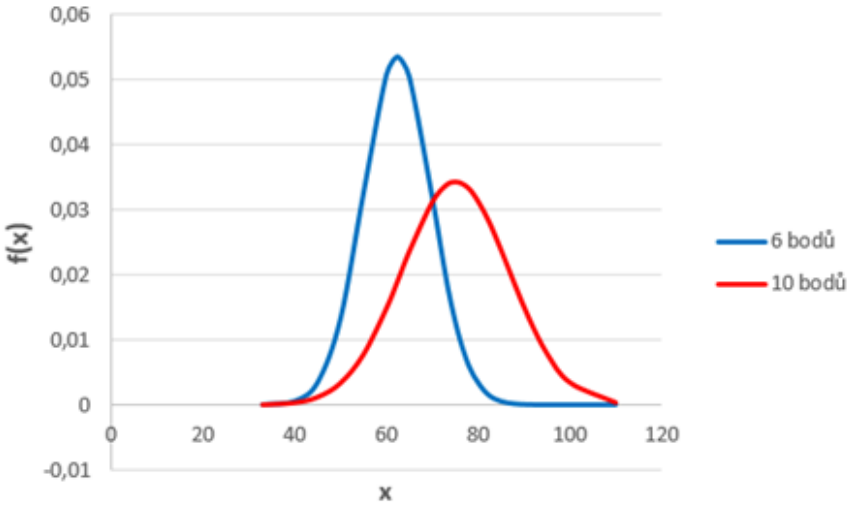
Kde výpočet parametrů popisují vztahy 3 a 4.

$$\mu \approx \bar{x} = \frac{\sum_{i=1}^{n} x_i}{n} \tag{3}$$

$$\sigma \approx s = \frac{\sum_{i=1}^{n} (x_i - \bar{x})^2}{n-1} \tag{4}$$

Graf 2 zobrazuje normální rozdělení v situaci 1 a 2, kde je dobře patrná změna parametrů, ale zachování charakteristické zvonové křivky.

Graf 2: Délky optimálních tras vykazující normální rozdělení



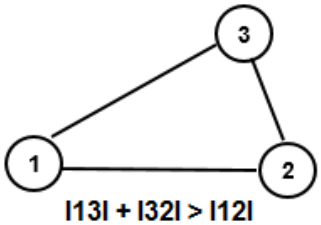
Zdroj: vlastní

Bylo by velice žádoucí tyto závěry zobecnit, čili najít kauzální závislost mezi počtem bodů a velikostí čtverce, ve kterém se body nachází na straně jedné a parametry normálního rozdělení náhodné veličiny – délky optimální trasy na straně druhé. Východiskem je vícenásobná regresní a korelační analýza, která dokáže příslušný funkční předpis nalézt, ovšem zde je třeba upozornit, že spolehlivějších výsledků by bylo dosaženo, pokud by se počet výše popsaných pokusů viz tabulka 1 zvýšil.
Potom by bylo možné s určitou pravděpodobností předpovědět střední hodnotu délky trasy pouze na základě počtu bodů, které trasa propojí, a na základě velikosti teritoria, ve kterém body leží, aniž bychom trasu znali. Takže neznáme optimální trasu, ale jsme schopni odhadnout její velikost.

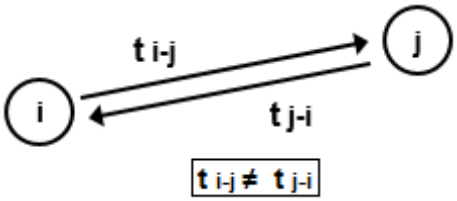
3.1 PROBLÉM S NESYMETRICKOU MATICÍ VZÁJEMNÝCH VZDÁLENOSTÍ

Zatím byl řešen problém, kde šlo o optimalizaci z hlediska minimalizace délky trasy spojující body v rovině. Praktická aplikace tohoto problému je nalézt nejkratší trasu např. pro dodávku rozvozové služby, která musí rozvést zásilky na definovaná místa a následně se vrátit do distribučního střediska (výchozího bodu). Ale optimalizovat je možné také podle jiných kritérií např. naplánovat trasu tak, aby byla nejkratší možnou – optimalizace z hlediska času. Tato modifikace má dvě specifika: není zaručena platnost trojúhelníkové nerovnosti a nemusí ani platit, že čas dojezdu z bodu 1 do bodu 2 bude rovna času dojezdu v opačném směru.

Obrázek 3: Ukázka trojúhelníkové nerovnosti u reálných bodů v rovině



Zdroj: ([2], s. 83) *vlastní zpracování*
Obrázek 4: Ukázka nerovností časů dojezdu ve zpátečním směru



Zdroj: vlastní

V předchozích částech článku se jednalo o reálné body, ze kterých byly pro účely výpočtu optimální trasy vypočteny vzájemné vzdálenosti, které v maticovém zápisu musely nutně dávat symetrickou matici a samozřejmě s nulami na diagonále. Nyní bude analyzována situace, kdy bude tato matice nahrazena maticí vzájemných dojezdových časů (mezi jednotlivými body), která s ohledem na realitu z logiky věci nebude symetrickou a ani trojúhelníková nerovnost ilustrovaná obrázkem 3 zde nemusí platit.
Klíčovou otázkou je zda pro tuto modifikaci problému rovněž platí, tytéž statistické hypotézy, které se podařilo ověřit v předchozích oddílech. Proto byl proveden následující pokus. Byla vytvořena matice vzájemných vzdáleností nikoliv na bázi definovaných bodů, nýbrž matice náhodných hodnot od 1 do 60 jednotek, kde se jedná o matici 10 x 10. Jedná se o snahu simulovat situaci, kdy máme 10 bodů, mezi kterými existuje matice vzájemných dojezdových časů, kde se předpokládá, že každý dojezd bude trvat od minuty po hodinu, proto jsou náhodná čísla volena od 1 po 60. Těchto matic náhodných časů bylo vygenerováno 40. U každé matice byla exaktně vypočtena optimální (časově nejrychlejší) trasa a tím bylo získáno 40 časů dojezdů (hodnoty účelových funkcí). Opět jsem provedl Kolmogorovův-Smirnovův test zjišťující, zda mají doby dojezdu normální rozdělení, což se potvrdilo (resp. nebyla zamítnuta nulová hypotéza na hladině významnosti $\alpha = 5\ \%$).

4 ZÁVĚR

I když příspěvek je spíše teoretického zaměření a jeho výsledky slouží jako podklady a východiska pro další bádání a pohybuje se na půdě teoretické matematiky, přesto v něm lze nalézt i některé závěry použitelné v praxi. Např. v situaci jednoho teritoriálního celku, ve kterém budou plánovány trasy pro stále stejný resp. podobný počet různě situovaných bodů bude délka této trasy nejčastěji oscilovat okolo jediné hodnoty, protože půjde o náhodnou veličinu s normálním rozdělením a střední hodnotou. Potom na základě empirických pozorování lze tuto střední hodnotu určit pomocí aritmetického průměru z tras stanovených v minulosti. Odhad délky optimální trasy, ještě před tím, než bude tato trasa známá lze uplatnit v následujících situací: Trasu lze stanovit intuitivně a pokud její délka odpovídá odhadované velikosti, indikuje to, že se podařilo nalézt optimální řešení a nebo řešení, které se optimálnímu řešení blíží (suboptimální řešení). A nemusí se jednat jen o intuitivní hledání trasy, ale i hledání pomocí heuristických algoritmů, u kterých rovněž není jistota, že řešení je optimální čili odhad trasy by posloužil jako kontrola a nebo by dokázal odhalit, že je již dosaženo uspokojujícího výsledku a proto je možné algoritmus zastavit.
Pro různý počet náhodně generovaných bodů se podařilo dokázat, že délka optimální trasy je náhodnou veličinou, která se řídí normálním (Gaussovým) rozdělením. Tento jev byl potvrzen také v situaci, kdy matice vstupních hodnot – vzájemných vzdáleností mezi body není symetrickou maticí. Jedná se o jednu z mnoha dalších modifikací okružního dopravního problému, resp. Problému obchodního cestujícího. Jedná se o modifikace o kapacitní omezující podmínku nebo omezení dané časovými okny, jak uvádí ([3.], s. 53 – 54). Takže je neustále co objevovat.

Použitá literatura

1. BUDÍKOVÁ, M. a kol. *Průvodce základními statistickými metodami*. 1. vydání. Praha: Grada Publishing, 2010. 272 s. ISBN 978-80-247-3243-5.
2. COOK, J., W. *Po stopách obchodního cestujícího. Matematika na hranicích možností*. 1. vydání. Praha: Dokořán, 2012. 255 s. ISBN 978-80-7363-412-4.
3. FIALA, P. a kol. *Operační výzkum nové trendy*. 1. vydání. Praha: Professional Publishing, 2010. 239 s. ISBN 978-80-7431-036-2.
4. <http://www.geneze.info/pojmy/subdir/problemy_tisicileti.htm> [cit. 11. 12. 2017]

Kontaktní údaje

Ing. Josef Košťálek
ČVUT v Praze, Fakulta strojní, Ústav řízení a ekonomiky podniku
Karlovo náměstí 13, 121 35 Praha 2, http://www.rep.fs.cvut.cz
josef.kostalek@fs.cvut.cz

VPLYV EXTERNÝCH FAKTOROV NA POČET PRACOVNÝCH MIEST – SLOVENSKÁ REPUBLIKA

THE IMPACT OF EXTERNAL FACTORS ON THE NUMBER OF JOBS – SLOVAK REPUBLIC

Marcela Galovská

Abstract

V príspevku upozorňujem na vývoj počtu pracovných miest v rámci Slovenskej republiky a vplyv faktorov v dôsledku interného a externého podnikateľského prostredia. V súčasnosti viaceré podniky uplatňujú automatizovanú výrobu alebo uplatňujú znižovanie počtu administratívnych pracovníkov. Cieľom príspevku je zhodnotiť a upozorniť vplyv externých faktorov na vývoj počtu pracovných miest v rámci Slovenskej republiky V rámci metodiky a metodológie sme využívali kvantitatívne a kvalitatívne metódy. Z kvantitatívnych metód sa sústreďujeme na korelačnú a regresnú analýzu. Na základe korelačnej analýzy upozorňujeme na závislosť počtu pracovných miesť z rôznymi faktormi ako náklady práce, vývoj technológií, vyhorenie – pracovná vyťaženosť.

Keywords: *organizovanie, pracovné miesta, náklady práce, technológie, vyhorenie*

Abstract

In this contribution, we draw attention to the development of jobs in the Slovak Republic and the influence of factors due to internal and external business environment. At present, several companies applying automated production or applying reducing the number of administrative staff. The aim of the contribution is to evaluate and draw attention to the impact of external factors on job creation within the Slovak Republic. The methodology and the methodology we used quantitative and qualitative methods. From quantitative methods, we focus on correlation and regression analysis. Based on the correlation analysis, we draw attention to the dependence of the number of workplaces on various factors such as labor costs, technology development, burnout – working occupancy.

Keywords: *organising, number of jobs, labor costs, technology, burnout*

Introduction

In the post, I draw attention to the impact of external factors on the number of jobs. At present, the number of jobs depending on the type of work has a decreasing or stagnating level. The emerging tendency has new unions and focus. Due to the introduction of industry 4.0 and lean management, the tendency is decreasing. It is important to examine the status of jobs due to job cuts. The theoretical part will be used relational content analysis, from the scientific and scientific literature we drew theoretical conclusions. From quantitative methods, we focus on correlation and regression analysis. We will discuss external factors from an economic, technological and psychological point of view.

1 TRENDS OF ORGANIZATION

Organising is one of the core managerial functions that also affect other functions. Organization is ensured, when organising a certain goal and aligning the work.

In the sense of (10) "Systemic understanding of an organization can be considered as a process, entropy, and institution. It is further characterized as a set of organizational activities. The system means the process of joining together, as a triple category, process, division of labour, and coordination. The purpose of the organization is to create conditions for coordinating the efforts of structuring processes and structures between roles and responsibilities. "

The function of the organising is associated with several tasks and activities i.e. creation or improvement of the organizational structure, implementation of established plans. When creating an organizational structure from the point of view of administrative and administrative departments, its shape and types are created. The shape may be pyramidal or flat. From the type of view of the classical (line) and the target-program (project). In improving the organizational structure, we use the method: lean production, downsizing, outsourcing.

At present, companies prefer a lean organization of businesses. From a historical point of view within the scientific methods of Taylor and Ford's mass production was useful significant improvement for the period. The economic environment of manufacturing enterprises has changed radically. Low costs and high quality are already taken for granted and more attention is focused on time.

According to (7) "that limitation in the literature by providing readers a foundational understanding of the primary legal constraints and legal issues affecting virtual teams, identifying important research questions related to the impact of legal context on virtual teams, and stimulating further thinking about the potential relevance of legal context to the role of trust, cultural differences, discriminatory behaviour, and other phenomena in virtual teams." On the other hand, studies (9) "The divergent nature between institutional logics allow for organizational actors to reconfigure elements into new creative hybrid arrangements. Drawing on relevant literature from related disciplines, the author identifies and examines four theoretical types of hybrids in the context: differentiated, symbolic, integrated, and dysfunctional. The internal dynamics and managerial implications associated with each hybrid type are further examined."

They examined the organizational structure (2) "Based on theories of social beliefs and person–supervisor fit, we offer an integrative perspective and predict that it is the congruence between leaders' and followers' social cynicism that shapes leadership dynamics. Overall, our study suggests that it is the correspondence between leaders' and followers' social cynicism that influences followers' leader–member exchange, extra-role, and proactive behaviour."

Even technologies are one of the factors to change within the organizational structure of an enterprise based on (3) "Open collaboration and exchange networks facilitate voluntary cooperative activity by people at dispersed physical locations. These and other related technologies have the potential to humanize global economic interactions, giving them more emotional resonance, as increasing affluence lessens individual and societal preoccupation with maximizing economic gain."

In examining the managerial functions of the organising, it is important to draw attention to the human resources management. According to (6) "The study argues that organizing human resource management needs to take into account learning experiences that employees can gain from participating in work and career development as well (besides formal training); moreover, that employees' human resource management strategies are at least as important as those used by line managers and human resource practitioners." Based on the study of apprenticeship human resources authors (14) "This study attempts to answer the following questions: What are the potential factors that internally affect the effectiveness of an organisation's experiential learning, and how do the network characteristics of an organisation influence the impact of those internal factors on that effectiveness? The findings show that

both the increase in part-time worker ratio and the high in-house manufacturing ratio negatively affect learning outcomes and that those negative effects are mitigated when plants have high centralities in networks."
They have also explored the issue (4) "Information asymmetry in an employment relationship is much researched in the organization studies literature because of its consequences for employment contracts, compensation, and rent appropriation by the involved parties. it highlights the underlying social exchange (social attraction and reciprocity), and the cognitive, affective, and behavioural processes. The influence of the psychological variables on information asymmetry may be moderated by contextual factors, such as interactional justice climate in teams, agency costs, and the type of employment relationship."
Within the study (5) "Overall, I present a process model of how disobedience emerges in situations. Disobedient participants were more likely to display two different communication patterns: assessing consequences or self-referential objections. In contrast, obedient participants were more likely to seek guidance on the experimental procedure and interrupt the learner's protests."

2 METHODS AND METHODOLOGY

The aim of the contribution is to evaluate and draw attention to the impact of external factors on job creation within the Slovak Republic. In the theoretical part, we used the relationship content analysis, from the scientific and scientific literature we drew theoretical conclusions. Through correlation analysis, we will examine the number of jobs to labour costs, research and development, occupational accidents and occupational diseases. Data sources have secondary character. In the correlation analysis, we will determine its coefficient based on the formula:

$$k(x,y) = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})$$

3 EXTERNAL FACTORS

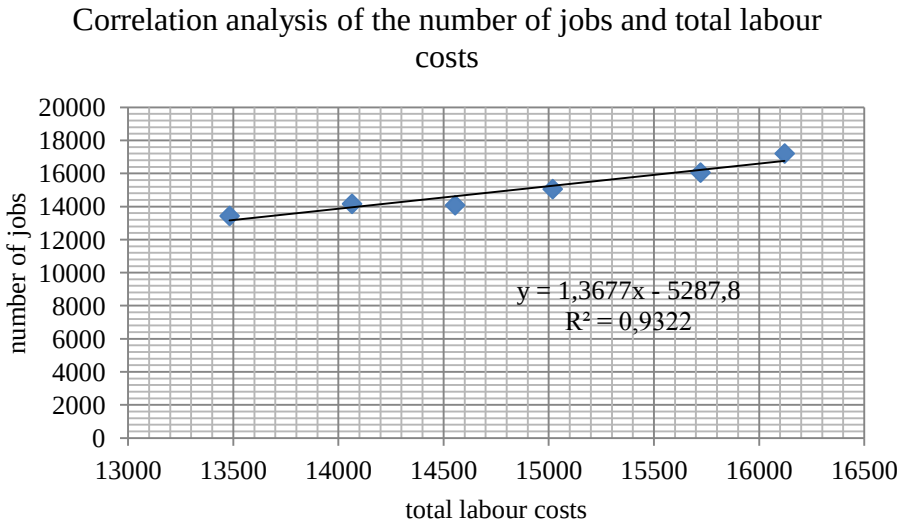
For each competitive and efficient business, it is important and necessary to monitor the external business environment. The global economic crisis mainly highlights this fact. The contribution focuses on the number of jobs; the crisis has caused them to decline. In terms of financial, technological and psychological stress their relationship with the global economic crisis.
Impact of lean management and industry introduction 4.0 (13) "It was found that lean production practices and operational performance mediate the relationship between human resources management practices and firm performance; lean duration moderates the relationship between human resources management practices and lean production practices in such a way that the longer the duration, the greater would be the adoption of lean production practices." On the other hand, (12) "Our findings indicate that Lean Production practices are positively associated with Industry 4.0 technologies and their concurrent implementation leads to larger performance improvements."
According to (1) "Many companies are faced with the question of how to deal with themes such as Lean Management and Industry 4.0. Successful companies will be able to implement an economically feasible concept which comprises the areas organization, automation, and manufacturing technology. This can only be achieved if lean principles, human-adapted automated systems, and new manufacturing technologies are closely interlinked."
The tracking of labour costs has been highlighted by the global economic crisis. The largest cost to businesses is the cost of a worker, i.e. labour costs.

Labour Costs consider as the sum of the cost per unit of time, which the employer incurs about the acquisition of education and labour. Between labour costs we include:

- direct costs - the sum of wages,
- indirect costs - include statutory and over-standard social security contributions,
- subsidies and government support - they are amounts in the form of subsidies.

Labour costs are differentiated by industry, with the highest cost dynamics in the manufacturing sector. Lower costs are in the primary and tertiary sectors.

Graph no.1 Correlation analysis of the number of jobs and total labour costs



Source: own processing based on statistical data of the Slovak Republic

The shape of the correlation analysis has a positive linear character. The correlation coefficient represents the value of 0.96553, which we consider to be a strong correlation. Within the confidence value, based on regression, the value is R^2 = 0,9322, i.e. high reliability.

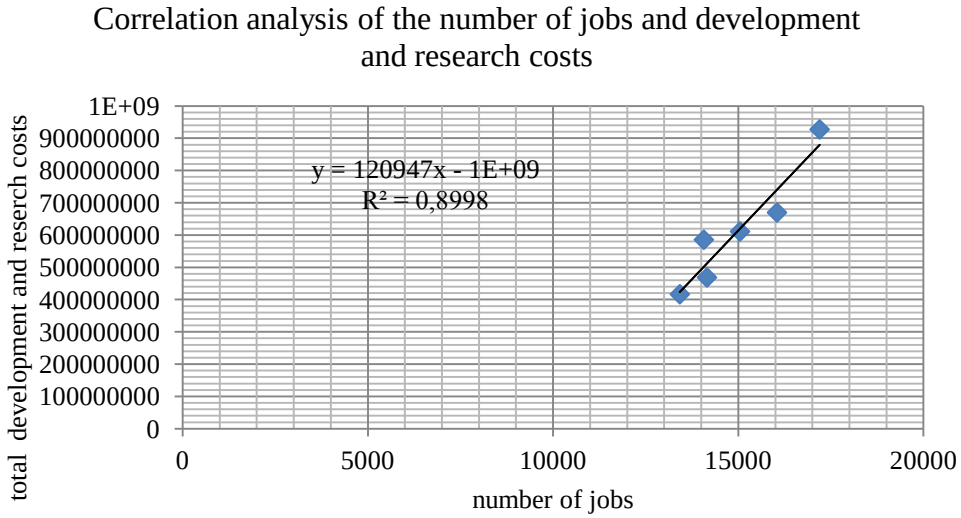
Automated production and industry 4.0 are causing job losses. Even the global economic crisis is affecting this trend, alerting businesses to focus on the quality of workers and technology.

One of the options for creating an effective work environment is the introduction of a learning organization whose instruments are:

- systemic thinking,
- personal mastery,
- thought schemas,
- creating a common vision,
- team learning.

Within the system, apprenticeship is considered systemically not individually. In expanding the knowledge and skills of human resources is a competitive advantage.

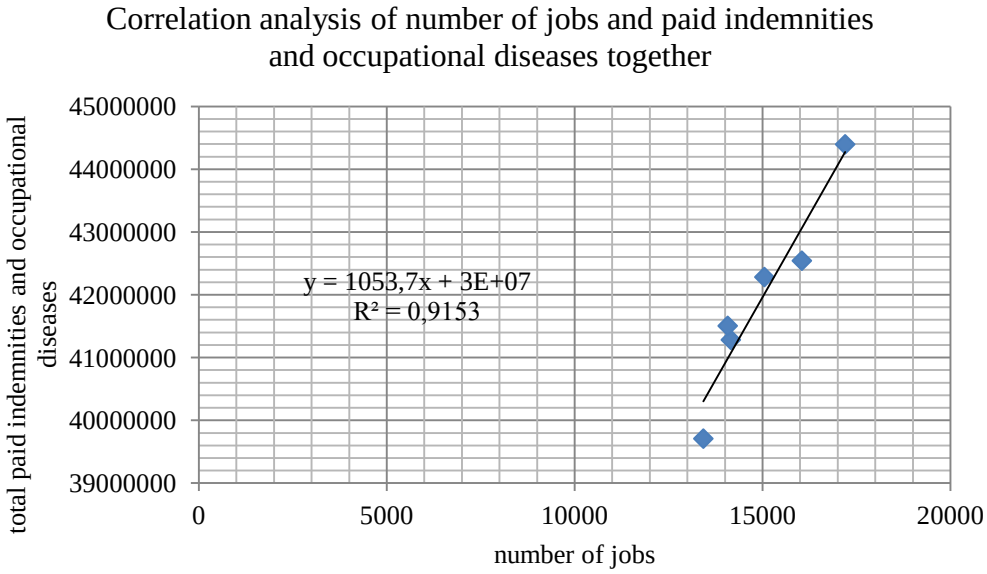
Graph no.2 Correlation analysis of the number of jobs and development and research costs



Source: own processing based on statistical data of the Slovak Republic

Even with the technological aspects of correlation analysis specific overall spending on research and development is a high correlation coefficient, which value is 0.948592. The regression analysis of the reliability of the value of R^2 = 0.8998. It is slightly lower than the economic aspect, but on the other hand, at high levels of reliability.
Even in the pre-crisis period in 2003, Toyota introduced a six-hour working time in Sweden to make staff feel more happy and happy. Another effect is the reduction of occupational diseases and highlight workload and work-life balance.
Human capital currently represents a competitive advantage for the organization to take care of. Human resources that carry out their work activities also carry out administrative duties on behalf of one or more persons within the company division or division.

Graph no.3 Correlation analysis of the number of jobs and paid indemnities and occupational diseases together



Source: own processing based on statistical data of the Slovak Republic

As part of the psychological aspect, workload and stress are currently causing a decline in the workload of human resources. The correlation coefficient is 0.956735 i.e. strong correlation. In view of the reliability of the regression is the value of $R^2 = 0.9153$ high reliability.
The highest reliability for the factors we highlight is in economic i.e. labour costs as well as correlation analysis.

4 CONCLUSION

Through the correlation analysis we find the dependence between economic, technological and psychological factors. Dependence determine compared to the number of jobs. These factors are strongly dependent on the number of jobs.
On the other hand, these factors have been investigated based on the introduction of new trends and theories. The economic side is always important for a business depending on the factor depends on its competitiveness. The global economic crisis has highlighted its importance. The technological effect is also investigated from an innovative point of view, the link is the introduction of industry 4.0. In the last graph, I draw attention to the psychological effect of a work-life balance and the introduction of a reduction in working hours. I am looking through the costs of accidents at work and occupational diseases. At present, human resources are increasing in my mind psychological illnesses, the effect of which is also the regulation of legislation in France and in Germany, where it is highlighted by the non-working time that there is a lack of emails during their free time.
Among the trends in the management function, we include:

- lean management,
- network organizational structure,
- new competencies in middle management,
- streamlining communication channels within the organizational structure.

These changes have a common cause, i.e. number of jobs. Jobs are gradually evolving some numbers are decreasing or growing new jobs. Everything is linked to the labour market where there are human resources that need to be taken care of within the enterprise. For this reason, I draw attention to the economic, technological and psychological aspect.
The economic and psychological aspect has a high degree of correlation and regression, i.e. confirms that the development of jobs depends on labour costs and the cost of accidents at work and occupational diseases.
The recommendations for organizations are as follows:

- concentrate on organising human capital because it creates added value,
- efficiently redistribute job based on job requirements,
- consider which jobs to replace by automation because human capital is irreplaceable,
- consider the economic, technological and psychological aspects of the number of jobs.

Sources

1. BUSCHER, U. and BÖGER, F. *How industry 4.0 and lean mutually stimulate – the impact on the strategic success factors.* ZWF Zeitschrift fuer Wirtschaftlichen Fabrikbetrieb, 112(7-8), 2017. pp. 518-521.
2. BYZA, O.A.U., SCHUH, S.C., DÖRR, S.L., SPÖRRLE, M. and MAIER, G.W. *Are two cynics better than one? Toward understanding effects of leader–follower (in-)congruence in social cynicism.* Journal of Organizational Behavior, 2017. 38(8), pp. 1246-1259.
3. GOERTZEL, B., GOERTZEL, T. and GOERTZEL, Z. *The global brain and the emerging economy of abundance: Mutualism, open collaboration, exchange networks and the automated commons.* Technological Forecasting and Social Change, 2017. 114, pp. 65-73.

4. KULKARNI, S. and RAMAMOORTHY, N. *The Psychological Foundations of Supervisor–Subordinate Information Asymmetry*. Organization Studies, 38(10), 2017. pp. 1445-1466.
5. PARMAR, B.L. *Disobedience of Immoral Orders from Authorities: An Issue Construction Perspective*. Organization Studies, 38(10), 2017. pp. 1373-1396.
6. POELL, R.F. and VAN DER KROGT, F., *Why is organizing human resource development so problematic? : Perspectives from the learning-network theory (Part I).* Learning Organization, 24(3), 2017. pp. 180-193.
7. ROEHLING, M. *The important but neglected legal context of virtual teams: Research implications and opportunities.* Human Resource Management Review, 27(4), 2017.pp. 621-634.
8. Statistical office of the Slovak Republic: http://datacube.statistics.sk/(1.12.2017)
9. SVENSSON, P.G. *Organizational hybridity: A conceptualization of how sport for development and peace organizations respond to divergent institutional demands.* Sport Management Review, 20(5), 2017. pp. 443-454.
10. ŠIMO, D. a MURA, L. *Manažment organizácií.* Bratislava: Wolters Kluwer, 2015. Ekonómia. ISBN 978-80-8168-242-1.
11. ŠOLTÉS, E. et al. 2015. *Štatistické metódy pre ekonómov: zbierka príkladov.* Bratislava: Wolters Kluwer. 2015. 351 p. ISBN 9788081682346.
12. TORTORELLA, G.L. and FETTERMANN, D. *Implementation of Industry 4.0 and lean production in Brazilian manufacturing companies.* International Journal of Production Research, 2017. pp. 1-13.
13. WICKRAMASINGHE, V. and WICKRAMASINGHE, G.L.D. *Effects of HRM practices, lean production practices and lean duration on performance.* International Journal of Human Resource Management, 2017. pp. 1-46.
14. YANG, D. and RHEE, M. *The role of co-production networks in organisations' efforts to enhance the learning curve outcomes.* Total Quality Management and Business Excellence, 28(11-12), 2017. pp. 1421-1445.

Contact

Ing. Marcela Galovská
University of Economics in Bratislava
Dolnozemská cesta 1/b, 852 35 Bratislava, Slovak Republic
email: galovska@azet.sk

VELIKOST PODNIKU A ENVIRONMENTÁLNÍ REPORTING – DŮKAZ Z ČESKÉ REPUBLIKY

THE SIZE OF THE COMPANIES AND ENVIRONMENTAL REPORTING – THE EVIDENCE FROM THE CZECH REPUBLIC

Lenka Bílková

Abstrakt

Cílem daného příspěvku je prezentovat vybrané výsledky pilotního výzkumu projektu s názvem „Podnikové procesy ve vazbě na vybrané aspekty podnikatelského prostředí.“ Tento výzkum je zaměřen na procesy uvnitř firmy, na které je možno nahlížet ze tří různých úhlů pohledu – struktury podniku, vlastnictví a environmentálního aspektu. Základní myšlenkou článku je detailně představit získané informace o velikosti podniku v návaznosti na environmentální reporting a ověřit je s teoretickými východisky. Příspěvek obsahuje data ohledně velikosti podniku, vlastnictví, organizační struktura a také informace vzhledem k environmentálnímu reportingu. Data pro vytvořenou databázi byla pořízena prostřednictvím dotazníkového šetření, které se uskutečnilo v roce 2016 v rámci NUTS II Severovýchod.

Klíčová slova: *velikost podniku, rodinný podnik, organizační struktura, environmentální reporting, NUTS II, Česká republika*

Abstract

The aim of this paper is to present the selected results of a pilot research of the project “Business processes in relation to selected aspects of the business environment.” This research is focused on the processes within the company, on which it can be viewed from three different perspectives – the structure of the company, the ownership and the environmental aspect. The basic idea of the article is to introduce the information about the size of the companies according to the environmental reporting. The article contains information about the size of the companies, ownership, organizational structure and also the information according to the environmental reporting. The database was taken through a questionnaire survey, which collected in 2016 in NUTS II Severovýchod.

Key words: *size of the company, family business, organizational structure, environmental reporting, NUTS II, Czech republic*

ÚVOD

Mezi důležité faktory, které ovlivňují velikost podnikatelské jednotky, se například řadí: strategie rozvoje organizace, organizační struktura podniku nebo také vlastnictví. V dnešní době je aktuálním pojmem vlastnictví podniku a s tím související rodinné podnikání. Ovšem tento typ podnikání nemá v České republice příliš dlouhou tradici (Hesková et al. 2008) a dle odhadů, 30 % veškerého podnikání tvoří rodinné podnikání (Koráb, 2008). Jak uvádí autor M. Hučka, za posledních dvacet let došlo k dramatickému zrychlení ekonomické a finanční integrace. V této souvislosti v konkurenci obvykle zvítězí ten, kdo je nejen inovačně schopnější, ale také výrobně pružnější ve vztahu k zákazníkovi. Podniky tedy musí neustále realizovat změny svého vnitřního prostředí, jež jsou označovány pojmem – organizační struktura.

Cílem zpracovaného článku je podrobně představit získané informace ohledně velikosti podniku s ohledem na environmentální reporting v podnikatelských jednotkách. Pilotní výzkum byl proveden prostřednictvím dotazníkového šetření v rámci tří krajů České republiky: Pardubického, Královehradeckého a Libereckého kraje. Příspěvek je zaměřen pouze na právnické osoby, tedy na obchodní korporace za účelem podnikání/zisku. Výše zmíněné tři kraje byly zvoleny záměrně z toho důvodu, že významně ovlivňují vzdělanost a hospodářství v České republice.

Zjištěné výstupy a informace byly získány prostřednictvím dotazníkového šetření, které se uskutečnilo v roce 2016 v rámci NUTS II Severovýchod.

Pilotní výzkum je řešen v rámci projektu Studentské grantové soutěže v roce 2016 na Katedře podnikového ekonomiky a managementu Technické univerzity v Liberci.

1 TEORETICKÁ VÝCHODISKA

Organizace neboli uspořádání uvnitř podniku je označováno za určitý inteligentní systém, v němž skupina lidí mezi sebou vědomě spolupracuje s cílem dosáhnout společných cílů. Jedním ze základů jakékoliv organizace je odpovědnost, která je přijímána jednotlivými členy (Saadat, 2005). Z tohoto důvodu musí být interakce v rámci organizace harmonická a koordinovaná s cílem minimalizovat nejasnosti, které budou mít za následek vyšší jistotu splnění odpovědnosti v rámci podnikatelské jednotky (Alavi et. al 2005).

Mintzberg (1972) uvádí, že organizační struktura je souborem vztahů na pracovním místě, operačních procesů, lidí a skupin, jež vytvářejí úsilí k dosažení stanovených cílů. Současně s tím koordinuje a rozděluje úkoly v dané podnikatelské jednotce. Autor Daft (2012) doplňuje, že organizační struktura by měla usnadnit správné reakce na životní prostředí, rozhodování v dané jednotce a řešení konfliktů mezi nimi. Též ji považuje za klíčový prvek uvnitř podniku. Organizační struktura může být ovlivněna celou řadou proměnných: cíli, strategií, životním prostředím, technologií nebo velikostí podnikatelské jednotky (Rabinz, 2012). Organizační struktura, dle autora Carley, zahrnuje v sobě mimo jiné také typ komunikační sítě, velikost organizační struktury, počet jednotek v dané síti a intenzitu komunikace mezi jednotlivými jednotkami uvnitř podniku. Autoři Senior a Swailes (2010) rozdělují determinanty, jež ovlivňují podnik na přímé a zprostředkované. Mezi prvky, které mají přímý vliv na organizační strukturu, dle jejich názoru, patří životní prostředí, strategie, technologie a velikost daného podniku a naopak mezi zprostředkované (nepřímé) proměnné se řadí kultura a vedení.

Z hlediska rozhodovací pravomoci a zodpovědnosti se rozlišuje organizační struktura – liniová, liniově-štábní nebo štábní. Liniová organizační struktura je typická spíše pro malé podniky. Vztahy podřízenosti a nadřízenosti jsou uspořádány vertikálně a každý nadřízený má jasně přidělené podřízené a naopak, každý podřízený má jasně dáno, kdo je jeho nadřízený. Hlavní předností tohoto typu organizační struktury jsou jasné kompetence a jednoduché vztahy mezi podřízeností a nadřízeností. Naopak mezi nevýhody se řadí dlouhé cesty mezi jednotlivými řídícími jednotkami, pomalá reakce a horší komunikační cesty (Cejthamr, 2005).

Organizační struktura, její změna a adaptace se na měnící podmínky v průběhu života podnikatelského subjektu, je klíčový komponent k úspěchu. Změna organizační struktury je formální krok, který je schopný zaručit podnikatelskému subjektu přežití na trhu. Manažeři v podnikatelských subjektech jsou zodpovědní za její změnu a přizpůsobení se měnícímu okolí: strategie, lidé, technologie, kultura, environmentální aspekty, zákazníci (Burnes, 2004).

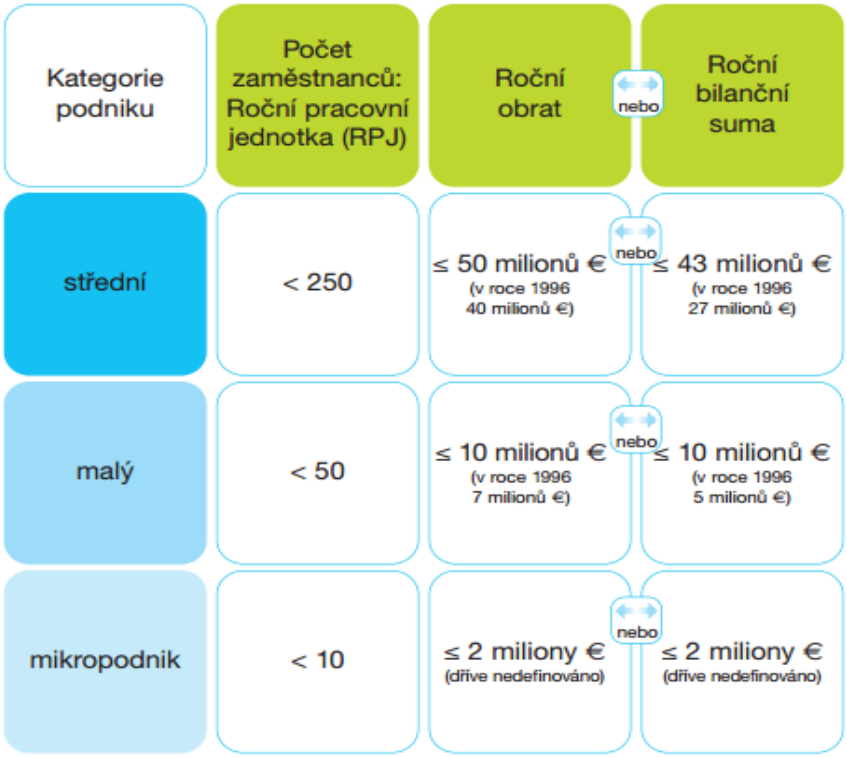
Environmentální aspekty a ochrana životního prostředí je v současné době velmi skloňovaná problematika. Ekologické katastrofy mají velký vliv na finanční zdraví a odpovědnost podniku (Klassen a McLauglin, 1996). Poptávka po environmentální zodpovědnosti a s tím spojeném vykazování činnosti v této oblasti ze strany zákazníků, zaměstnanců a dodavatelů, je stále větší (Dixon et al., 2004). Environmentální reporting (nebo také reporting zachycující chování podnikatelského subjektu v oblasti životního prostředí) je informativní nástroj, který je dobrovolný a podnikatelské jednotky ho využijí k informování svých zaměstnanců, dodavatelů, zákazníků, veřejnosti atd. o jejich environmentálním profilu, například, jaké aktivity plánuje v oblasti životního prostředí, jaké neplánuje nebo jaký dopad mají tyto činnosti na životní prostředí. Environmentální reporting pouze popisuje současný stav a situaci, není nikterak externě řízen a nejedná se o žádný preventivní přístup. Jedná se o univerzální nástroj pro všechny firmy bez rozdílu (Remtová, 2006).

S podnikem jako takovým také souvisí velikost podniku. Základní kritériem pro posouzení velikosti podniku dle kvantitativních kritérií je počet zaměstnanců, velikost ročního obratu, bilanční suma roční rozvahy (velikost aktiv) a nezávislosti. Údaje, které se používají pro stanovení počtu zaměstnanců a finančních veličin, jsou údaje, jež se vztahují k poslednímu uzavřenému zdaňovacímu období vypočtené za období jednoho kalendářního roku. Charakteristika vymezení podniků je následující:

- za velké podniky jsou považovány firmy, které zaměstnávají více než 250 zaměstnanců a jejich roční obrat přesahuje 50 milionů EUR nebo jejich bilanční suma roční rozvahy přesahuje 43 milionů EUR,
- za střední podnik se považují takové firmy, které zaměstnávají méně než 250 zaměstnanců a jejich roční obrat nepřesahuje 50 milionů EUR nebo jejich bilanční suma roční rozvahy nepřesahuje 43 milionů EUR,
- malými podniky jsou vymezeny organizace, jež zaměstnávají méně než 50 osob a současně jejich roční obrat nebo bilanční suma roční rozvahy nepřesahuje 10 milionů EUR,
- drobní podnikatelé (mikropodnik) jsou vymezeni jako podnikatelé, jež zaměstnávvají méně než 10 osob a současně jejich roční obrat nebo bilanční suma roční rozvahy nepřesahuje 2 miliony EUR. (CzechInvest, 2016)

Veškeré výše uvedené informace lépe a přehledněji zobrazuje obr. 1 (níže uvedeno), kde jsou všechna uvedená kritéria zpracovaná do schématu.

Obr. 1: Typologie podniků dle počtu zaměstnanců



Zdroj: Nová definice malých a středních podniků [online]. Evropská společenství, 2006 [cit. 2017-11-20]. 50 s.

Dalším kritériem, které je rozhodující o tom, jakou organizační strukturu si podnikatelská jednotka vybere je i typ podniku, to znamená, zda se jedná o rodinný podnik či nikoliv. Struktura rodinné podnikání je v řadě bodů odlišná od klasického podnikání. Je to dané právě specifičností podnikajícího subjektu, tedy rodiny. Rozdíly jsou v oblasti personální i ekonomické (Rydvalová, 2015). Jak uvádí P. Rydvalová (2015) ve světě je možné nalézt čtyři definice rodinného podnikání – italskou, švýcarskou, německou a rakouskou. Vymezit a definovat rodinný podnik není nikterak jednoduché. V roce 2007 Evropská komise přijala definici rodinného podniku: většina hlasovacích práv je ve vlastnictví fyzických osob, které založily firmu, rodina disponuje většinou rozhodovacích práv (přímo nebo nepřímo) a alespoň jeden zástupce rodiny nebo rodu musí být formálně zapojen do řízení podniku (Rydvalová, 2015)

2 METODOLOGIE A VÝSLEDKY VÝZKUMU

Při výzkumu studované problematiky, kterou se článek zabývá, byl použit následující metodický postup. Na základě studia relevantní odborné literatury byly stanoveny klíčové pojmy. Další krokem pilotního výzkumu byl sběr primárních dat prostřednictvím vytvoření dotazníku, který byl následně v elektronické podobě distribuován podnikatelským jednotkám. Dotazníkové šetření se realizovalo ve třech vlnách od konce června 2016 do poloviny září 2016. Dotazníkové šetření bylo provedeno v rámci NUTS II Severovýchod, do kterého spadají tři kraje: Liberecký, Královehradecký a Pardubický kraj. Respondenty dotazníkového šetření byly aktivní firmy, zahrnující malé, střední a velké podniky, jež na trhu působí minimálně 5 let.

Distribuovaný dotazník byl rozdělen do třech částí podnikových procesů – organizační struktury, vlastnictví (rodinné, nerodinné podniky) a environmentálních aspektů. Respondenti

odpovídali na otázky prostřednictvím nabízených odpovědí, v případě nutnosti či nevyhovující navolené odpovědi měli možnost volné odpovědi. Pro zjednodušení komunikace a průběhu výzkumu byl dotazník použit pouze v elektronické podobě. Respondenti měli možnost vyplnit vytvořený dotazník buď v MS Word nebo online v softwaru MonkeySurvey. Výsledky výzkumu byly vyhodnoceny pomocí MS Excel.

2.1 Vlastnictví a kategorie podniku

Dotazníkového šetření se zúčastnilo celkem 117 podnikatelských jednotek. V tabulce 1 je možné spatřit rozdělení podniku na rodinné, nerodinné a na podniky, které se nevyjádřily ke svému vlastnictví. Celkem 56 podniků uvedlo, že se považují za rodinný podnik, 47 firem uvedlo, že nejsou rodinným podnikem a 14 podniků ke svému vlastnictví nevyjádřilo.

Tab. 1: Typ podniku

Typ podniku	Počet firem	% podíl
Nerodinný	47	40 %
Rodinný	56	59 %
Neuvedeno	14	11 %
Suma	117	100 %

Zdroj: vlastní zpracování.

Tabulka 2 zobrazuje rozdělení podniků z hlediska jejich velikosti. Dotazníkového šetření se z 55 % účastnily malé podniky, ze 43 % střední podniky, a ze 2 % velké podniky.

Tab. 2: Kategorie podniku a jejich počet

Kategorie podniku	Počet firem	% podíl
Malé	64	55 %
Střední	50	43 %
Velké	3	2 %
Suma	117	100 %

Zdroj: vlastní zpracování.

Z tabulky 3 vyplývá, že největší zastoupení v dotazníkovém šetření, z hlediska právní formy, mají společnosti s ručením omezeným, konkrétně 65 podniků. Na druhém místě se umístily akciové společnosti, s počtem 50. Třetí místo zaujímá jedna veřejná obchodní společnost. V rámci dotazníkového šetření NUTS II (Pardubický kraj, Královehradecký kraj a Liberecký kraj) nemá žádné zastoupení komanditní společnost a jedna firma se k právní formě nevyjádřila. Průzkum dokazuje skutečnost, že společnosti s ručením omezeným jsou v České republice nejrozšířenější formou podnikání. Naopak komanditní společnost společně s veřejnou obchodní společností nejsou příliš častými formami.

Tab. 3: Právní forma podniků

Typ organizační struktury	Počet firem
Společnost s ručením omezeným	65
Akciová společnost	50
Veřejná obchodní společnost	1
Komanditní společnost	0
Neuvedeno	1
Suma	117

Zdroj: vlastní zpracování.

Z níže uvedené tabulky 4 je možné spatřit výsledky dotazníkového šetření ohledně typu organizační struktury. Největší zastoupení mají společnosti s ručením omezeným – 65 podnikatelských subjektů, které jsou následovány akciovými společnostmi – 50 podniků. Nejmenší zastoupení mají veřejně obchodní společnosti – pouze 1 společnost.

Tab. 4: Organizační struktura podniků

Typ organizační struktury	Počet firem
s. r. o.	65
a. s.	50
v. o . s.	1
k. s.	0
neuvedeno	1
Suma	117

Zdroj: vlastní zpracování

2.2 Podnikatelské jednotky a ekologické chování

V níže uvedené tabulce 5 je možné spatřit výsledky dotazníkového šetření a to konkrétně o tom, zda se podnikatelské jednotky chovají ekologicky. Ze 117 dotazovaných podniků neodpovědělo na tuto otázku celkem 16 podniků. Ve zbylých odpovědí je vidět velká shoda v tom, že jak malé, střední i velké podniky se, dle jejich názoru, chovají šetrně k životnímu prostředí. Pouze 5 podniků, kategorie malý, odpovědělo, že si nemyslí, že by se v tomto směru chovaly ekologicky.

Tab. 5: Ekologické chování podniků

Chová se Váš podnik ekologicky?				
	Kategorie podniku			Celkem
	Malý	Střední	Velký	
Ano	49	44	3	93
Ne	5	0	0	5
Neodpovědělo	10	6	0	16

Zdroj: vlastní zpracování

Další oblastí, kterou se dotazník zabýval, byla sestavování zpráv o životním prostředí – tabulka 6. Na tuto otázku celkem neodpovědělo 30 podnikatelských jednotek. V kategorii – malý podnik, se činností o sestavování zprávy o životním prostředí zabývá zpravidla jeden

zaměstnanec – 35 podniků. Na druhém místě se umístila odpověď, že nikdo tyto zprávy v podniku nevytváří – 7 odpovědí. A na třetím místě se umístila externí firma – 2 odpovědi.
V kategorii, střední podnik, se touto oblastí zabývá taktéž jeden zodpovědný zaměstnanec firmy – 26 odpovědí. Na druhém místě byla externí firma, jež zpracovává informace o ekologickém chování podniku – 7 odpovědí. U velkých podniků se v této oblasti angažuje jeden odpovědný zaměstnanec – 3 odpovědi.

Tab. 6: Kdo v podniku sestavuje zprávy o životním prostředí

Kdo sestavuje zprávy o životním prostředí ve Vaší organizaci?				
	Kategorie podniku			Celkem
	Malý	Střední	Velký	
Jeden odpovědný zaměstnanec	35	26	3	64
Specializované oddělení	1	3	0	4
Externí firma	2	7	0	9
Nikdo	7	3	0	10
Nevyplněno	19	11	0	30

Zdroj: vlastní zpracování

Další část dotazníku zpracovávala způsob informování, o aktivitách v oblasti životního prostředí, zaměstnanců, dodavatelů, zákazníků nebo veřejnost. Tabulka 7 shrnuje informace o této problematice.
Kategorie – malý podnik nejvíce využívá pravidelných schůzek se zaměstnanci a webové stránky, celkem odpovědělo 12 podnikatelských jednotek. Na druhém místě nejvíce malé podniky využívají také výroční zprávy a oběžníky popř. maily. Mimo jiné také pořádají doprovodné akce pro veřejnost.
Kategorie – střední podniky nejvíce využívají k informování o aktivitách v oblasti životního prostředí webové stránky společnosti. Na dalším místě se umístily pravidelné schůzky se zaměstnanci a výroční zprávy.
V kategorii – velký podniky používají především noviny dané společnosti.

Tab. 7: Jak informuje podnik o aktivitách v oblasti životního prostředí

Jakým způsobem informujete své zaměstnance a širokou veřejnost o Vašich aktivitách v oblasti životního prostředí?				
	Kategorie podniku			Celkem
	Malý	Střední	Velký	
Noviny společnosti	3	6	2	8
Výroční zprávy	6	14	1	15
Doprovodné akce pro veřejnost	3	3	0	3
Pravidelné schůzky se zaměstnanci	12	15	0	15
Webové stránky společnosti	12	19	0	19
Oběžníky/maily	6	8	0	8
Jiné	0	0	0	0

Zdroj: vlastní zpracování

2.3 Environmentální reporting

Další oblastí, kterou se článek i dotazníkové šetření zabývá je environmentální reporting. Níže uvedená tabulka 8 ukazuje výsledky dotazníkového šetření.

V kategorii malých podniků tohoto dobrovolného nástroje nevyužívá celkem 46 dotazovaných podnikatelských subjektů a pouze 7 podniků jej používá.
V kategorii středních podniků je to velmi obdobné. Téměř 27 dotázaných environmentálního reportingu nevyužívá a pouze 17 firem ano.
V kategorii velkých podniků – 2 podniky reportují a 1 tohoto nástroje nevyužívá.

Tab. 8: Využití environmentálního reportingu podniky

Využíváte environmentálního reportingu?				
	Kategorie podniku			Celkem
	Malý	Střední	Velký	
Ano	7	17	2	26
Ne	46	27	1	74
Neodpovědělo	10	6	0	16

Zdroj: vlastní zpracování

Poslední částí dotazníkového šetření a výzkumu, které se zabývalo velikostí podniků s dopadem na ekologii a environmenální reporting, byl obsah negativních dopadů na životní prostředí a zda tuto skutečnosti podnikatelské jednotky ve svých zprávách zveřejňují – shrnutí je uvedeno v níže zpracované tabulce 9.
V kategorii – malých podnik, na tuto otázku neodpovědělo celkem 34 podniků, 27 podniků uvedlo, že nepublikují negativní vlivy na životní prostředí a pouze 3 firmy danou skutečnost zveřejňují.
V kategorii – střední podnik, 24 dotázaných firem uvedlo, že zveřejňují možné negativní důsledky chování, 15 podniků neodpovědělo a 11 jednotek nepublikují negativní vlivy na životní prostředí.
V kategorii – velký podnik, 1 firma zveřejňuje dopady na životní prostředí a 2 ne.

Tab. 9: Obsah negativních vlivu v environmentálním reportingu

Uvádíte v environmentálním reportingu i případný negativní vliv podniku na životní prostředí?				
	Kategorie podniku			Celkem
	Malý	Střední	Velký	
Ano	3	24	1	28
Ne	27	11	2	40
Neodpovědělo	34	15	0	49

Zdroj: vlastní zpracování

ZÁVĚR

Zpracovaný článek se zabýval zkoumáním velkostí podniků (malé, střední a velké) v návaznosti na ekologické chování a na environmentální reporting. Data byla pořízena pomocí pilotního dotazníkového šetření, které se uskutečnilo v roce 2016 ve třech krajích České republiky.

Dotazníkového šetření se zúčastnilo nejvíce malých a středních podniků. Největší zastoupení, z hlediska právní formy podniků, měla společnost s ručením omezeným – celkově 65 podnikatelských jednotek a 50 akciových společností.

Z výzkumu vyplynulo, že ekologicky se chovají, jak malé, střední tak i velké podniky. Zprávy o životním prostřední v malých podnicích nejčastěji sestavuje jeden zodpovědný zaměstnanec

podniku. Stejné je to v případě střední i velké firmy. V malých podnicích nejčastěji informují o životním prostředí prostřednictvím pravidelných schůzek se zaměstnanci a pomocí webových stránek firmy. Posléze využívají také výroční zprávy či doprovodné akce pro veřejnost. Středně velké podnikatelské jednotky využívají nejvíce webových stránek, poté výroční zprávy a pravidelných schůzek se zaměstnanci. V případě velkých podniků – ty informují veřejnost a své zaměstnance prostřednictvím novin dané společnosti.

Z dotazníkového šetření bylo zjištěno, že environmentálního reportingu mnoho podnikatelských jednotek nevyužívá. V případě malých firem – pouze 7 podniků jej využívá a 27 ne. V kategorii středních podniků – 27 tohoto nástroje využívá a pouze 17 společností ano. Velké podniky jej ve 2 případech nevyužívají a pouze v 1 ano. Co se týká zveřejňování možných negativních dopadů na životní prostředí v environmentálním reportingu. Celkem 34 malých podniků na tuto otázku neodpovědělo, 27 společností nezveřejňují tuto informaci a pouze 3 malé jednotky publikují možné negativní následky činnosti podniku na životní prostředí. V kategorii středních podniků na tuto otázku neodpovědělo celkem 15 dotazovaných společnosti, 11 nepublikují danou informaci a 24 společností jej zveřejňují. U velkých podniků – 2 společnosti nepublikují tuto skutečnost a pouze 1 ano.

Poděkování
Tento příspěvek byl zpracován v rámci výzkumného projektu SGS-EF-3300-21141 Podnikové procesy ve vazbě na vybrané aspekty podnikatelského prostředí, realizovaného na Ekonomické fakultě Technické univerzity v Liberci.

Použitá literatura

1. ALAVI, R., DANAI, A. (2005). Worthwhile organization possession, making talent based organization. *Journal of Asre Modiriate*, 54-60.
2. BURNES, B. Kurt Lewin and the planned approach to change: Areappraisal. *Journal of Management Studies*, 41(6), 977-10002.
3. CARLEY, K. M. (2002). Intra-organizational computation and complexity, in J.A.C. Baum (Ed.), Companion to Organizations, 2002. Oxford: Blackwell Publisher. 2002. ISBN 978-1-84787-569-3.
4. CZECHINVEST – AGENTURA PRO PODPORU PODNIKÁNÍ A INVESTIC. (2016). Definice malého a středního podnikatele. Definice MSP – uživatelská příručka. Retrieved November 28, 2016, from http://www.czechinvest.org/data/files/definice-msp-uzivatelska-prirucka-4128-cz.pdf.
5. DAFT, R. L. (2012). *Organization Theory and design*. OH: Cengage Learning, 2012. ISBN 978-0-324-59913-8.
6. DIXON, R., MOUSA, G.A., WOODHEAD, A.D., The necessary characteristic of environmental auditors: a review of the contribution of the financial auditing profession. *Acc. Forrum* 28 (28). 119-138.
7. EC. (2009). *Overviwe of family-business-relevant issues: Research, network, policy measures and existing studies. Final report of the expert group*. Retrieved November 03, 2016, from http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/family-business/index_en.htm.
8. HESKOVÁ, M., VOJTKO, V. (2008). *Rodinné firmy – zdroj regionálního rozvoje*. Zeleneč: Profess Conssulting, 2008. ISBN 978-80725-9062-9.
9. HUČKA, M., KISLINGEROVÁ, E. (2011) *Vývojové tendence velkých podniků, podniky v 21. století*. Praha: C. H. Beck, 2011. ISBN 978-80-7400-198-7.

10. KLASSEN, R.D., MCLAUGLIN, C.P., 1996. The impact of environmental management on firm performance. *Manager. Sci*. 42 (8), 1199-1214.
11. KORÁB, V., HANZELKOVÁ, A., MIHALSKO, M. (2008). *Rodinné podnikání*. Brno: Computer Press, 2008. ISBN 978-80-251-1843-6.
12. MINTZBERG, H. (1987). Crafting strategy. *Harvard Business Review*. 65(4) Jul-Aug, pp. 66-75.
13. REMTOVÁ, K. (2006). Dobrovolné environmentální activity: Orientační příručka pro podniky. *Planeta*, 14(6). ISSN 1801-6898.
14. RYDVALOVÁ, P., KARHANOVÁ HORYNOVÁ, E., JÁČ, I., VALENTOVÁ, E., ZBRÁNKOVÁ, M. (2015). *Rodinné podnikání – zdroj rozvoje obcí*. Liberec: Technická univerzita v Liberci. ISBN 978-80-7494-245-7.
15. SAADAT (2005). Committed personel increase energy. *Journal of Asre Modiriat*, 68-74.
16. SENIOR, B., SWAILES, S. (2010). *Organizational Change*. Harlow, UK: Prentice Hall. ISBN 978-0-273-71620-4.

Kontaktní údaje

Ing. Mgr. Lenka Bílková
Technické univerzita v Liberci, Ekonomická fakulta
Voroněžská 13, 460 01 Liberec 1
Tel: 485 352 218
email: lenka.bilkova@tul.cz

VYUŽITÍ OTEVŘENÝCH DAT PRO ÚČELY STRATEGICKÉHO ŘÍZENÍ START-UP PROJEKTŮ

USAGE OF OPEN DATA FOR THE PURPOSE OF STRATEGIC MANAGEMENT OF START-UP PROJECTS

Jan Boubín

Abstrakt

Otevřená data jsou moderní ekonomický nástroj, který je možné uplatnit v nejrůznějších oblastech managementu, včetně oblasti strategického řízení. Především pro účely strategického řízení start-up projektů mohou mít obrovský význam. Jejich pozitivní dopad je však stále přehlížen a není tak dosaženo dostatečné úrovně jejich aplikace. Cílem příspěvku je zhodnotit a definovat možnosti aplikace otevřených dat v oblasti strategického řízení start-up projektů. Článek je deskriptivního charakteru a na základě literární rešerše došlo k analýze současného stavu a deskripci možností praktické aplikace otevřených dat na úrovni strategie projektu. Výsledky příspěvku představují ucelený přehled praktické aplikace otevřených dat pro účely strategického plánování a řízení start-up projektů, s důrazem na pozitivní dopad jejich aplikace a na možná rizika s tím spojená.

Klíčová slova: *otevřená data, plánování, řízení, start-up, strategie*

Abstract

Open data is a modern economic tool that can be deployed in a variety of management areas, including strategic management. Especially for strategic management of start-up projects, they can have a great importance. However, their positive impact is still overlooked and the level of their application is not sufficiently achieved. The aim of paper is to evaluate and define the possibilities of open data application in the field of strategic management of start-up projects. The article is descriptive and based on a literary research, the current state have been analyzed and there was made a description of the possibilities of practical application of open data on the level of strategy of the projects. The results of the contribution represent a comprehensive overview of the practical application of open data for the purpose of strategic planning and managing of start-up projects, with an emphasis on the positive impact of their application and the potential risks associated with them.

Key words: *managing, open data, planning, start-up, strategy*

1 ÚVOD

Strategie podniku je jednou z nejdůležitějších oblastí firemního řízení. Správně nastavená strategie by měla výrazně přispět ke správnému fungování firmy a vést ji k dosažení pozitivních ekonomických výsledků. Vytváření a řízení strategie je velice složitý proces. V dnešní době je možné na řízení strategie aktivně pracovat a používat nástroje, které mohou efektivitu strategie výrazně zvyšovat.

Jedním z těchto moderních nástrojů jsou otevřená data. Představují budoucnost pro veřejný i soukromý sektor. Škála jejich využití se skutečně široká a jejich reálná aplikace přináší možnosti úspěšného zavádění, řízení i hodnocení dané strategie.

Otevřená data jsou stále podceňována, přestože jejich pozitivní dopad na ekonomiku je považován za zásadní. Jejich vliv může být podstatný především pro začínající firmy nebo pro start-up projekty. U těchto subjektů existuje největší riziko vzniku chyby, která může společnost ohrozit. Otevřená data mohou toto riziko omezit a měla by podporovat správnou volbu, definici a řízení konkrétní strategie.

2 LITERÁRNÍ REŠERŠE

Literární rešerše příspěvku se zabývá třemi základními oblastmi výzkumu. Nejprve je konkrétně definován teoretický rámec strategického plánování a řízení. Ve druhé části je zdůrazněn potenciál otevřených dat. Třetí částí je definování teoretického rámce start-up projektů.

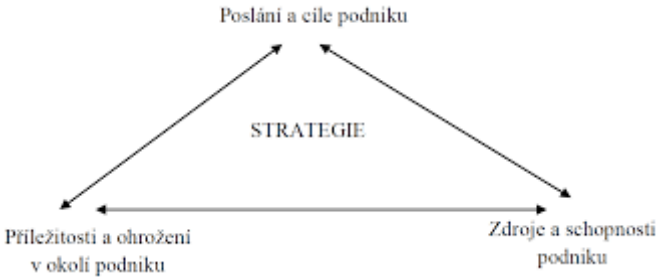
2.1 Strategie

Pojem strategie představuje dlouhodobou cestu, která směřuje k dosažení stanovených cílů. Poprvé se tento pojem objevil ve vojenství, postupně se rozšířil do nejrůznějších oblastí života, jako jsou politika, sport, diplomacie nebo podnikové řízení. Základním předpokladem firemní strategie je takové využití kapitálu (finančního, materiálního i lidského), kdy je snahou naplnit vize, poslání a cíle firmy. (Mallya, 2007)

Aby bylo možné výše zmíněné body prakticky realizovat, je nutné vytvářet nejrůznější strategické scénáře. Tyto scénáře mají za úkol pružně reagovat na odchylky od plánu a zároveň eliminovat veškerá rizika, která by mohla projekt nebo celou firmu ohrozit. Řízení projektů je ovšem v současnosti velice problematické. Je nezbytné reagovat na okolí společnosti a strategii adekvátně řídit. (Kaplan a Norton, 2010)

Strategické řízení je jedna z nejdůležitějšího oblastí řízení firmy na úrovni top managementu. Strategie společnosti musí vždy korespondovat s potřebami a představami podniku a zároveň pružně reagovat na veškeré změny (tržní, politické, technologické, apod.) (Vopálenský, 2003). Zároveň je nutné hospodárně a efektivně nakládat s vlastními zdroji (viz Obrázek 1). Strategické myšlení je proto považováno za jednu z nejdůležitějších vlastností vrcholného manažera. (Keřkovský a Vykypěl, 2006)

Obrázek 1: Vztah mezi posláním podniku, podnikovými zdroji a schopnostmi a okolím podniku



Zdroj: Keřkovský a Vykypěl, 2006

Strategický management firmy zahrnuje základní elementy, kterými jsou poslání, vize a strategické cíle. Poslání stanovuje funkci a smysl fungování firmy. Jedná se o základní pravidla, kterými se firma řídí a která naplňují její podstatu. Poslání je základem pro vizi, která představuje jakousi vidinu toho, kde by se firma měla nacházet v budoucím horizontu.

Vize je tedy předpokládaný budoucí vývoj společnosti. Strategické cíle jsou přesnou formulací předpokládaných firemních met, kterých chce firma v dlouhodobém horizontu dosáhnout. (Rey a Bastons, 2017) Základem pro vytvoření strategických cílů jsou přesně definované poslaní a vize. Strategický cíl by vždy měl splňovat základní aspekty vycházející z tzv. SMART podmínek. Jedná se o zkratku anglických slov specific (konkretizace cíle), measurable (měřitelnost), acceptable (dosažitelnost), realistic (reálnost) a timed (časová specifičnost). (Sedláčková a Buchta, 2006)

Dělení firemních strategií není úplně jednoduché. Existuje několik možných pohledu na to, jak strategie klasifikovat. Dle Tidda et al. (2007) lze v základní rovině dělit strategie na racionalistické a inkrementální. Racionalistická strategie vychází k modelu zhodnotit - rozhodnout - provést. Tímto jsou stanoveny tři základní kroky pro stanovení této strategie. V prvním kroku jde o popis a analýzu prostředí, ve druhém o stanovení postupu, který vychází z prvního kroku, a v závěrečném kroku o realizaci konkrétního postupu. Výhodou této strategie je její jednoduchost. Nevýhodu přestavuje prakticky nulová možnost reagovat na změny a strategii upravovat (eventuální možností je vytvoření nové strategie v návaznosti na původní).

Inkrementální strategie má naopak za cíl pružně reagovat na změny. Vychází z předpokladu, že není možné adekvátně pochopit a analyzovat všechny změny na trhu. Proto je těžké předvídat konkrétní budoucí vývoj. Strategii je proto nutné přizpůsobovat novým informacím, znalostem a poznatkům. Tyto strategie bývají poměrně účinné v dosahování cílů a eliminaci rizik. Na druhé straně vytvářejí velký tlak na manažery a jejich schopnosti správně se orientovat v současných trendech a správně je vyhodnocovat. (Tidd, 2007)

Strategický management je rychle se rozvíjející oblast managementu, proto vzniklo několik tzv. moderních strategií. Například strategie založená na znalostech a inovacích je úzce zaměřena na využití potenciálu kreativních zaměstnanců, se snahou využívat jejich schopnosti pro rozvoj firmy a hledání nových možností. Strategie otevřené inovace vychází z inovačního potenciálu firmy, jež neváhá rozvíjet svůj inovační potenciál i za pomoci poznatků z externího prostředí (prostřednictvím konzultací, spolupráce, aj.). (Hučka, 2011)

Globální podniková strategie určuje smysl a cíle podnikových aktivit. Jejím základním předpokladem je SWOT analýza, ze které daná globální podniková strategie vychází (Voříšek, 1997). Strategie rudého oceánu demonstruje situaci, kdy se firma snaží být lepší než konkurence v rudém oceánu, což je odvětví, jehož hranice je pevně vymezena. Existují též modré oceány, což jsou dosud neznámá nebo neexistující odvětví, která představují velký potenciál pro budoucí tržní vývoj. I zde existují strategie. Často jde v případě strategie modrého oceánu o přesah z rudého oceánu a snahu odlišit se zásadně od konkurence, případně hledat nové podnikatelské možnosti. (Kim a Mauborgne, 2005)

Pro efektivní strategické řízení je nutné propojení strategie s celkovým řízením firmy. Často se jedná o složitý proces s problematickým dosahováním cíle. Existuje určitý systémový přístup rozdělený do šesti fází, který zaručuje adekvátní propojení těchto dvou oblastí a tím správnou implementaci strategie. Jednotlivé fáze na sebe plynule navazují a jejich pořadí je pro úspěch stěžejní. První fáze zahrnuje vypracování strategie, která je ve druhé fázi detailnější plánovaná. Ve třetí fázi dochází k tzv. vyladění organizace. Jde o přizpůsobení nadefinované strategie pro jednotlivé sekce společnosti. Čtvrtá fáze zahrnuje plánování jednotlivých provozních činností vycházejících z nadefinované strategie. Po stanovení všech potřebných parametrů přichází na řadu pátá fáze. Jedná se o sledování, poznávání a učení se.

Realizace strategie není vždy dokonalá. Rozpoznávat chyby a učit se z nich je jedním z nejpodstatnějších úkolů strategického managementu. Stejně tak jde o správné zvládnutí práce se získanými informacemi z externího a interního prostředí. V závěrečné šesté fázi se jedná o tzv. ověřování a přizpůsobování. Vedení firmy musí adekvátně pracovat se získanými informacemi o interním i externím prostředí včetně údajů o řízení strategie. Na základě těchto údajů je nutné strategii řídit a upravovat do úspěšné podoby. (Kaplan a Norton, 2010)

2.2 Otevřená data

Základním rysem otevřených dat je jejich volná dostupnost. Data jsou zpřístupněna všem firmám, institucím i soukromým osobám. Jedná se o data z nejrůznějších oblastí ekonomie, hospodářství, výzkumu, vývoje, apod. Informace jsou zveřejněny v elektronické podobě, čímž je umožněno jejich volné šíření a možnost sdílení co největším počtem subjektů. Mezi základní charakteristiky otevřených dat patří dostupnost, redistribuce, možnost jejich opětovného užití, absence technologických omezení, přiřazení autorství a integrita. (Open Knowledge Foundation, 2012)

Široká škála dat nabízí potenciál pro ekonomický rozvoj firem a eliminaci rizik, která by posléze mohla vést k finančním problémům firmy nebo až k jejímu zániku. Otevřená data nabízejí možnost rizika omezit, čímž by měl být posílen nejenom rozvoj společnosti, ale i celé tržní struktury. (Pollock, 2012)

Ze strategického pohledu nabízí využití otevřených dat možnost vytvoření optimální start-up strategie, čímž může být do jisté míry omezen dopad špatné volby v úvodu podnikání či plánování projektu. Otevřená data je možné využít v řízení operativním, taktickém i strategickém. (Pollock, 2012)

Na základě vývoje potřebných kvalitativních i kvantitativních dat je možné strategii firmy upravovat a řídit firmu či projekt v krátkodobém i dlouhodobém horizontu. Data mohou být důležitým podkladem pro volbu konkurenční nebo kooperativní strategie. Otevřená data by měla do budoucna představovat nástroj optimalizace firemních procesů. (Solom a Björk, 2012)

Vytváření vlastních otevřených dat může firma vytvořit určitou konkurenční výhodu a podílet se na vytváření dobrého jména společnosti. Tím podpořit loajalitu stávajících a získávat nové zákazníky, partnery a dodavatele. Naopak na základě otevřených dat může firma vybírat vhodné potenciální partnery. Zároveň může vhodným výběrem významných odběratelů budovat dál silnou firemní značku. (Lathrop a Ruma, 2012)

2.3 Start-up

Start-up je označení pro nově vznikající projekt nebo firmu na základě nových nápadů. Start-up firma velice často stojí ze začátku pouze na nápadu nebo podnětu a její podnikatelský záměr se teprve rodí. Okruh oblastí, ve kterých může start-up vzniknout, je prakticky neomezený. (Luger a Koo, 2005)

Start-up vychází primárně z jedinečného nápadu. Nápad je v tomto případě průlomovou novinkou, kterou by mohlo využívat širší spektrum populace. Na základě nápadu vzniká projekt. Projektem se rozumí sofistikovanější nastínění nápadů, z pohledu jejich realizace, řízení a financování. Jsou nastíněny formy a postupy, které by měly vést k dosažení předpokládaného cíle a ke komercionalizaci projektu. Vznik start-up firmy je poté zpravidla

poslední, ale nejvíce problematickou fázi, vyžadující velké počáteční finanční nároky. (Tidd, 2007)

Nejzásadnější výhodou start-upů je jejich pozitivní dopad na globální inovační potenciál. Mladí lidé přichází s něčím novým, co zpravidla pozitivně ovlivňuje trh a motivuje k rozvoji i velké zavedené firmy. Ve velkém počtu případů byly start-upy na startu úspěšného globálního projektu (např. Google). Zároveň přinášejí důležité zkušenosti pro mladé pracovníky, ať už v oblasti řízení, plánování nebo vývoje konkrétního projektu. Určitou nevýhodou může být příliš ambiciózní nahlížení na projekt, který ve finále nepřinese adekvátní finanční návratnost, ať už z důvodu přílišné a neočekávané finanční náročnosti projektu nebo z důvodu neúspěšné komercionalizace. Riziko neúspěchu je poměrně vysoké a nedostatek zkušeností mladých lidí může někdy způsobit přílišnou snahu pro zavedení projektu s menší šancí na úspěch. Spolupráce se zkušenými investory toto riziko eliminuje, na druhé straně snižuje zisk pro zakladatele projektu. Zde je nutné zvážit poměr míry rizika a reálné finanční návratnosti projektu. (Luger a Koo, 2005)

3 METODY

Hlavní výzkumnou otázkou příspěvku je: Jaké je praktické využití otevřených dat v oblasti zavádění a řízení strategie pro účely start-up projektů? Cílem příspěvku je zhodnotit a definovat možnosti aplikace otevřených dat v oblasti strategického řízení start-up projektů.

Příspěvek má deskriptivní charakter. Na základě literární rešerše odborných zdrojů došlo k analýze současného stavu a následné deskripci možností praktické aplikace otevřených dat v oblasti strategického řízení start-up projektů.

Výsledky příspěvku představují současný obraz možností reálné aplikace otevřených dat v oblasti strategického řízení ve specifickém prostředí start-up projektů. Důraz je kladen na fáze plánování, implementace a vyhodnocování strategií.

4 VÝSLEDKY ZKOUMÁNÍ

Propojení otevřených dat a strategického řízení je poměrně úzké. Někdy je dokonce otevírání dat považováno za určitou formu firemní strategie. Aplikace otevřených dat pro účely strategického řízení je z určitého pohledu jednoduché, ale skýtá určitá rizika. Především se jedná o možnost špatné analýzy dat a vyvození neadekvátního závěru. Na druhé straně je užití otevřených dat finančně nenáročnou činností, jelikož data jsou volně a bezplatně dostupná, čímž odpadají jakékoliv vedlejší náklady spojené s jejich pořizováním. Nákladné mohou být pouze případné expertýzy, které by měly ve výsledku vést ke snazšímu pochopení datasetů a širších souvislostí, které s sebou nesou.

Otevřená data se dají aplikovat ve všech třech hlavních oblastech strategického řízení, tedy v rámci plánování, řízení a zhodnocení strategie. V rámci plánování mají však jistě největší význam. Otevřená data mohou velice účinně ukázat směr, kterým by se strategie měla ubírat.

Oblastí aplikace dat je celá řada. Údaje z účetních výkazů mohou být účinnou pomůckou při sestavování rozpočtu. Geografické a demografické údaje mohou výrazně pomoci s výběrem lokality, kde daný projekt realizovat. Logistické informace dávají možnost nastavit adekvátně dodavatelský a distribuční řetězec. Podobných oblastí by bylo možné najít celou řadu, záleží na konkrétní oblasti realizace jednotlivých projektů a nutnosti využít konkrétní oblast datasetů.

Již na začátku projektu je vhodné zvolit vhodné partnery a v případě start-upů případné investory. Otevřená data mohou tento proces výrazně zjednodušit, respektive minimalizovat riziko špatného výběru. Jde o určitou míru legálního sledování aktivit těchto skupin. Pokud mají partneři či investoři zájem zveřejňovat své údaje veřejně, zpravidla nemají co skrývat a je možné poměrně efektivně odhalit, zda dostojí svým závazkům, nejenom finančním. A zároveň odhalit, zda budou pro projekt skutečně přínosní.

Otevřená data mohou efektivně pomoci také při sestavování strategických scénářů. Mladým lidem, kteří start-up projekty realizují, velmi často chybí dostatek zkušeností, které není vždy možné zastoupit dobrým nápadem a nasazením. Data fungujících subjektů dávají možnost připravit se na rizika a vytvářet skutečně efektivní plány. Stejně tak je možné se efektivně učit z chyb konkurence a vytvářet tak efektivní scénáře, respektive vyvarovat se chyb, které se již v minulosti staly.

V neposlední řadě je možné na základě dostupných údajů z okolí sestavovat harmonogram projektu či rozpočet. Právě chybějící zkušenosti mohou být určitou překážkou k dosažení efektivity a data ostatních firem mohou být poměrně účinným ukazatel směru a návodem, který může poměrně náročný proces časového a finančního plánování zjednodušit. Opět tedy dochází k určité eliminaci možnosti vzniku rizik spojených s projektovým řízením.

Implementační fáze strategického řízení v sobě často nese prvek improvizace. Stává se, že se plány nenaplňují. Je proto potřeba strategii pružně upravovat a efektivně reagovat na změny v okolí firmy či projektu, ale i v jejich vlastním vnitřním prostředí (odchod zaměstnanců, změna finanční situace, apod.). Otevřená data již do určité míry mohla rizika nastavení nevhodné strategie eliminovat. Nyní mají potenciál vytvářet adekvátní pružnou reakci.

V prvé řadě je možné sledovat vývoj ostatních firem nebo celých odvětví a na základě těchto údajů adekvátně reagovat. Tyto vývojové údaje by měli projekt nasměrovat správným směrem a omezit riziko vzniku nesprávného dalšího kroku, který by mohl projekt ohrozit. Vydat se v těžké chvíli správným směrem je náročný krok, který vyžaduje poměrně velké zkušenosti. Otevřená data představují v tomto případě určitou úroveň dřívějších zkušeností, které mohou být návodem pro ostatní, méně zkušené subjekty.

Druhým důležitým prvkem který mohou otevřená data přinášet, je určitá úroveň predikce. Na základě vývoje dostupných údajů je možné předvídat další vývoj v dané oblasti. To s sebou nese nároky na analytické schopnosti manažerů a vedoucích zaměstnanců. Ale v případě dobré orientace je možné strategii správně řídit a především upravovat dle aktuální potřeby. Predikce je velice důležitým bodem řízení start-up projektů, který může ovlivnit jejich úspěšnost do budoucna. Proto je důležité se na ni zaměřit a využívat všechny dostupné zdroje vedoucí ke správným rozhodnutím.

Zhodnocení dané strategie je velice důležitým bodem, který vede k nastavení a správné definici strategie nové nebo navazující. V dnešní době již není možné ohlížet se pouze na vlastní strategii a na vlastní závěry. Je nutné hodnotit strategii v širších souvislostech. Otevřená data mohou účinně pomoci sledovat, jak si vedla konkurence nebo lídři v obdobném oboru, a to nejenom po finanční stránce. Je možné zpětně najít určitý volný prostor na trhu a ten využít. Na základě dostupných údajů lze velice efektivně zjistit, jak úspěšná byla určitá strategie ve srovnání s okolním prostředím. A na základě těchto údajů nastavit parametry nového strategického záměru. Prvek poučení se nejenom z vlastních chyb je zde velice důležitý.

5 DISKUZE

Otevřená data jsou moderní nástroj, který může efektivně pomoci při plánování, řízení i zhodnocení strategie. Je evidentní, že jejich zásadní význam je v podobě eliminace rizik a učení se. Jejich problémem je nedostatečné povědomí o jejich existenci. V České republice nejsou zkušenost s otevřenými daty na žádoucí úrovni a firmy (ale rovněž i start-up projekty) často ani nevědí o existenci tohoto ekonomického elementu nebo s ním neumí efektivně pracovat (Boubín a Staňková, 2016). Problém není tedy v dostupnosti dat, ale především v celkové neznalosti jejich potenciálu. To by bylo vhodné do budoucna změnit pomocí adekvátní iniciativy vedoucí k osvětě ohledně otevřených dat a jejich praktického využití v nejrůznějších oblastech managementu.

Dle popisu výše je evidentní, že není možné získat data úplně ze všech potřebných oblastí. Datasetů je poměrně hodně, ale jistě nemohou poskytnout kompletní informační základnu. Stále je nutné využívat vlastních zkušeností. Data se dají efektivně využívat, je ale nutné si držet určitý odstup a nadhled.

Užití otevřených dat spolu nese dva základní limity. Jedním z nich je fakt, že firmy nejsou povinny zveřejňovat skutečné údaje. Je pravděpodobné, že když už se firma rozhodne poskytovat volně své údaje (k čemuž není vázána zákonem), budou tyto údaje pravdivé. Jistota to však není. Proto je nutné k údajům přistupovat s určitou rezervou a pro větší přehled kumulovat údaje z co největšího množství zdrojů.

Druhý limit je úzce spojen s limitem prvním. Práce s otevřenými daty vyžaduje poměrně výrazné nároky na analytickou práci s daty a na schopnosti získané údaje správně začlenit do dané strategie. Je možné vytvořit speciální analytickou skupinu či najmout si odborníka na tuto oblast, což však nese určité finanční nároky. V každém případě, stejně jako všechny ostatní oblasti managementu, vyžaduje práce s otevřenými daty určitou úroveň zkušeností.

6 ZÁVĚR

Start-up projekty jsou ambiciózní a pro celkovou úroveň tržní ekonomiky nesmírně prospěšné subjekty. Vyžadují však, stejně jako velké firmy, poměrně vysoké nároky na plánování a řízení těchto projektů. Na druhé straně je často realizují mladí lidé, kteří nemají dostatek zkušeností a potřebují určitou úroveň informační podpory. Touto podporou mohou být volně dostupné údaje ostatních firem, tedy otevřená data.

Aplikace otevřených dat je možná prakticky ve všech oblastech projektového řízení. Největší význam mají ve fázi plánování, kdy je správné nastavení strategie velice důležité a otevřená data mohou pomoci strategii kvalitněji definovat. Význam mají i ve fázi řízení strategie, především v oblasti úpravy scénářů a učení se z chyb. S tím souvisí i závěrečná fáze, tedy zhodnocení dané strategie. Zhodnocení by mělo zahrnovat i komparaci s konkurencí a ostatními firmami tak, aby mohla být nová strategie naplánována dostatečně efektivně.

Ukazuje se, že otevřená data fungují především jako účinný nástroj eliminace rizik, kdy je možné poučit se z chyb okolí a vyvarovat se chyb vlastních. Rovněž představují určitý návod, kterým směrem se vydat a mohou být rovněž účinnou motivací pro rozvoj společnosti a dosahování potřebného cíle.

Aplikace dat nese s sebou určitá rizika. Autenticita dat není úplně stoprocentní, proto je nutné k nim přistupovat s určitým odstupem. Práce s daty vyžaduje nemalé nároky na analytické schopnosti, které je někdy nutné zajistit z externích zdrojů. Stejně tak je nutné postupně

získávat zkušenosti s prací s daty, případně se radit s experty tak, aby bylo dosaženo naplnění cílů organizace skrze adekvátní plánování a řízení strategie.

Potenciál otevřených pro účely strategického plánování a řízení start-up projektů by mohl být do budoucna zásadní a mohl by přispět k úspěšnosti realizace a uplatňování těchto projektů. Stále však chybí dostatečná informační podpora tohoto nástroje. Bylo by vhodné, kdyby byla otevřená data mnohem více propagována a jejich potenciál se skutečně prosadil. Do budoucna by měly volně dostupné údaje pomoci nejenom start-up projektům, ale i celkové úrovni tržní ekonomiky.

Poděkování
Příspěvek byl zpracován s podporou projektu SGS č. 3600/21194 „Využití otevřených dat pro účely zavádění a řízení start-up projektů a zvyšování firemní transparentnosti“.

Použitá literatura

1. BOUBÍN, J., STAŇKOVÁ, L. Aplikace otevřených dat soukromým a veřejným sektorem v České republice. *In*:*Mezinárodní Masarykova konference pro doktorandy a mladé vědecké pracovníky*. Hradec Králové: Magnanimitas, 2016. 69 – 78 s. ISBN 978-80-87952-17-7.
2. HUČKA, M., et al. *Vývojové tendence velkých podniků. Podniky v 21. století.* Praha: C. H. Beck, 2011. ISBN 978-80-7400-198-7.
3. KAPLAN, R., NORTON, D. *Efektivní systém řízení strategie: Nový nástroj zvyšování výkonnosti a vytváření konkurenční výhody.* Praha: Management Press, 2010. ISBN 978-80-7261-203-1.
4. KEŘKOVSKÝ, M., VYKYPĚL, O. *Strategické řízení: teorie pro praxi.* 2. vydání. Praha: C. H. Beck, 2006. ISBN 80-7179-453-8.
5. KIM, C., MAUBORGNE, R. *Strategie modrého oceánu*. Praha: Management Press, 2005. ISBN 80-7261-128-3.
6. LATHROP, D., RUMA, L. *Open Government: Collaboration, Transparency, and Participation in Practice.* Newton: O'Reilly Media, 2012. 432 s. ISBN 978-0-596-80435-0.
7. LUGER, M. I., KOO, J. Defining and Tracking Business Start-ups. *In: Small Business Economics*. The Netherlands: Springer, 2005. 17-28 s. ISSN 0921-898X
8. MALLYA, T. *Základy strategického řízení a rozhodování.* Praha: Grada Publishing, 2007. ISBN 978-80-247-1911-5.
9. OPEN KNOWLEDGE FOUNDATION. *Open Data Handbook* [online]. 2012 [vid. 2017-12-03]. Dostupné z: http://opendatahandbook.org/en/.
10. POLLOCK, R., 2012. *Opening up meeting* [online]. 2012 [vid. 2017-12-08]. Dostupné z: http://www.slideshare.net/OpeningUp/open-data-conference-rufus-pollock.
11. REY, C., BASTONS, M. Three dimensions of effective mission implementation. *In: Long Range Planning* [online]. 2017 [vid. 2017-12-06]. Dostupné z: http://dx.doi.org/10.1016/j.lrp.2017.07.002.
12. SEDLÁČKOVÁ, H., BUCHTA, K. *Strategická analýza.* Praha: C. H. Beck, 2006. ISBN 80-7179-367-1.
13. SOLOM, D, BJÖRK, B. A Study of Open Access Journals Using Article Processing Charges. *In: Journal of American Society for Information Science and Technology*, 2012. roč. 63, č. 8. ISSN 2330-1643.
14. TIDD, J., et. al. *Řízení inovací: zavádění technologických, tržních a organizačních změn.* Brno: Computer Press, 2007. ISBN 978-80-251-1466-7.

15. VOPÁLENSKÝ, J. Vývoj, terminologie a obecné pohledy na strategické plánování a řízení. *In: Marketingové noviny* [online]. Praha, 2003 [vid. 2017-11-28]. Dostupné z: http://www.marketingovenoviny.cz/marketing_1256/.
16. VOŘÍŠEK, J. *Strategické řízení informačního systému a systémová integrace.* Praha: Management Press, 1997. ISBN 80-85943-40-9.

Kontaktní údaje

Ing. Jan Boubín
Technické univerzita v Liberci, Ekonomická fakulta
Voroněžská 13, 460 01 Liberec 1
Tel: 485 352 406
email: jan.boubin@tul.cz

NATIONAL MANAGEMENT STYLE: RESEARCH EVIDENCE FROM POLAND

Urszula Bąkowska-Morawska, Mieczysław Morawski

Abstract

The paper presents reasons underlying the choice of research direction and the research project assumptions focused on the conceptual category – national management styles. Additionally, there are presented comments to research assumptions reflecting the Author's standpoint, as well as conclusions based on the conducted preliminary studies. In the opinion of the authors the performed analysis will facilitate defining qualities specific for Polish national management style and also NMS in other Central European countries in the future studies.

Key words: *national management style, polish national management style, polish enterprise*

1 INTRODUCTION

According to the Authors of the hereby study national management style (NMS) represents one of new terms. Specifically, it is a new concept in the context of the Polish and the wider Central European conditions. This is not a completely new concept. Previously, however, was attributed to the traditional capitalist economies or developed countries and regions of strategic importance from the point of view of the Western world [Bjerke 1999, p.287; Gesteland 2002]. Even though the designations comprising this term are traditional ones when put together they allow to capture two following issues. Firstly, NMS category reflects changes occurring in an enterprise which leading resource is represented by people [Szaban 2003], therefore interpersonal factors [Morawski 2010, p.173-188] and their impact on effective organizational resources implementation constitute the basic research dimension. Secondly, rapid and dynamic development of such countries as e.g. China, India, Brazil, Turkey or Poland which, so far, have been occupying peripheries of civilization, following Western World values, results in increased interest in the sources of these economies becoming successful. The specific nature of management in different cultural, economic or technical conditions does not have to be regarded as a pathological but, in fact, represents an efficiently formed – in given conditions – synergistic effect manifested by the accepted and generalized system of Polish, Ukrainian, Serbian or Czech management. Certainly it is high time to go beyond the traditional model of Anglo-Saxon management [Hampden-Turner, Trompenaars 2000]. It is true, though, that this model established the background for civilization success in a global dimension, however, more and more examples of emerging economies require to take into account also other management solutions. These solutions may be effective and recognized as a more universal pattern of an organization functioning since they go beyond the local context. They definitely constitute, if not just an alternative to Anglo-Saxon management model, its important supplement.

The hereby paper is of theoretical and conceptual nature. The assumptions of a research project are presented with the national management style as the key conceptual category.

Rapid development of economies in many countries encourages for researching success factors within enterprises located there. Definitely, the basic questions to be answered refers to specific qualities of local management. The examples of developed countries and their socio-economic systems indicate that in this respect we face the specific factors creating the

unique relations of adequate determinants. National economies of such countries as USA, Japan, Germany, France, Great Britain, etc. represent the best examples. This reminds the times of growing interest in Japanese management methods, which became attractive when Japanese economy and enterprises representing it started winning competitive advantage over American and European companies. Currently a similarly increasing attention is paid to Korean companies' management, following the spectacular success of Samsung, Kia and other enterprises. The formation of modern management in USA and Europe has many underlying reasons: the opinion of pioneers in management science, systematically appearing new "conceptual products" offered by consultancy companies and influential advisors, systemic concepts and implemented methods facilitating management processes introduced in the leading American, European and Japanese corporations, resulted in the fact that for many years the "Western" approach and, in fact, the Anglo-Saxon one to the theory and practice of management, dominated or even created an undisputable model of solutions. Undoubtedly the processes of globalization, computerization, networking did support such domination. Therefore, when the canon of management solutions is different from an Anglo-Saxon one the dysfunctions or imperfections are pointed to. The specific nature of management in different cultural, economic or technical conditions does not have to be regarded as a pathological but, in fact, represents an efficiently formed – in given conditions – synergistic effect manifested by the accepted and generalized system of Polish [Misiak 2004], Ukrainian or Czech management. Countries and nations referred to as emerging economies can also bring in their input to the theory of management science, e.g. regarding the phenomenon of entrepreneurship, approach to human resources management, brand creation, etc.

The examples of many countries and their socio-economic systems indicate that in this respect we face the specific factors creating the unique relations of adequate determinants. The conditions are created by history, culture, religion, legislation, lifestyle and other factors which altogether establish the unique space for running a business, stimulate particular attitudes, behaviours and decisions referring to e.g. entrepreneurship, innovation, hierarchy, an individual, a group. The absence of theoretical research, which could refer to the identified characteristics of Polish national management style in an enterprise, is evident. This category, as the research direction, practically does not occur at the background of management science in Poland. Individual studies are of fragmentary and occasional nature, are quite anachronistic and outdated [Solarz, 1984]. The practice of fundamental, structural transformations, which has been going on in Poland and other countries introducing free market rules, has taken the long enough period to open the need for research covering the reasons and results of significant differences between management styles in these countries, as well as forecasting future processes, e.g. management convergence. The attempt to capture the influence of local factors on management processes, its confirmation or negation, defining the possible power, scope, importance and direction of such impact can be recognized as an important cognitive task. NMS category opens an opportunity for taking a synthetic perspective towards the studied phenomena and processes by emphasizing the hypothetically assumed relations and mutual interdependencies between the strategy, resources, structure and invisible, frequently unconscious, autotelic determinants in the way of thinking and functioning. The results of research will allow for better understanding of determinants underlying the establishment of international alliances and capital relations and also will, hopefully, break the stereotypes and prejudices.

2 RESEARCH ASSUMPTIONS

Research thesis: National management styles (NMS) in enterprises of the studied countries differ significantly from NMS of enterprises influenced by Anglo-Saxon management

patterns *Research problem:* What are the differences and similarities: their size, scope, permanence, transformations in time, firstly, between NMS of the studied countries and secondly, jointly Central European countries and countries under the influence of Anglo-Saxon management patterns.
Research questions:

What are the qualities of NMS in particular countries can enhance management in other countries, due to e.g. their efficiency?

To what extent does the formed NMS, applied in the majority of enterprises in a given national economy in central Europe, represent the imitation of "Western values" and to what degree the exemplification of local conditions?

What are the crucial determinants resulting from local conditions and having decisive influence on NMS qualities?

Is it possible to define the specific NMS qualities which are common for Central European enterprises?

Table 1 NMS- concept and components

NMS represents the concept:	NMS components:
▪ historically and culturally determined, formed in time, informal, ▪ significantly influencing attitudes, behaviours and decisions of people involved in management processes, ▪ as the method for reality perception in an organization and its environment, ▪ reflected in thinking and acting, ▪ for constructing, influencing, modifying and development of an enterprise resources, ▪ functioning by exerting impact, motivating, communication and other interpersonal factors.	▪ national and organizational culture, ▪ method for valuation/perception of reality in an organization and outside it, ▪ attitudes, behaviours and decisions made by people in management processes, ▪ resources subject to influence, ▪ interpersonal factors ▪ attitudes to cooperation between stakeholders ▪ attitudes to sustainability

Source: Own study

The central category on which the project research is to be focused refers to *national management style* (NMS). It is not a new concept. However, in the past it was used only with reference to traditional, developed capitalist economies or countries and regions representing strategic importance from the perspective of *Western European countries.* The basic research problem covers the answer to the question what are the differences and similarities: their size, scope, stability, changes in time between NMS characteristics of enterprises in Poland and others countries. Additionally, it is assumed that comparative analysis will be carried out between the common characteristics of Polish Management Style and the Anglo-Saxon model of enterprise management [Bąkowska-Morawska,Witkowski, 2015, p.37] .

3 COMMENTS ON THE RESEARCH OBJECTIVES

NMS category represents, to an extent, a closed concept by accepting certain elements which define particular research areas. The listed components are supposed to reflect the leading role played by people in an organization. Therefore it is accepted that the level of reality perception, by both owners and managers as well as the remaining members of an organization, has been significantly determined by the history, national culture, personal and

collective experience. These determinants are reflected in the approach to resources at the disposition of an organization. NMS category represents, at the same time, an open concept since it has to cover diversified local factors typical for social environment. Such environment persists under major impact of primary, causative forces in the form of historical events (political, economic, social), memories of them as well as their evaluation resulting from self-reflection presented by individuals and social groups. National culture is established based on such memories. This results in its universal quality and is disseminated by means of the related set of preferences and obligations understood and accepted by community members. National culture codes are transferred into the grounds of an organization and take the form of a certain organizational culture. An individual element exerts impact on the dimension of culture and manifests itself in the style of a given entrepreneur (owner, manager). This style refers to company management, i.e. in the perspective of accepted NMS category it means determining to what extent motivation, communication and other forms of interpersonal relations influence the approach towards taking advantage of the due resources, which is reflected in adequate attitudes, behaviours and decisions of both supervisors and subordinates. The accepted research perspective means concentrating on interpersonal relations, however, in their direct, dynamic reference towards taking advantage of an organization resources in the overall management process. Owing to potential difficulties related to the analysis of such, most frequently, informal relations and interdependencies it seems founded – at least at the initial identification stage - to concentrate on a limited in number group of small and medium enterprises. In small and medium sized companies it is usually easier to capture processes involving people. Firstly, the existence of one dominating entrepreneur (manager) can be assumed, or a small decision-making group, the management style of which is relatively easily imposed on other members of an organization. The attitudes and behaviour of all or the majority of a small or medium enterprise members are therefore characterized by common logic. Additionally, it is much more feasible in a small or medium sized company, than in a large corporation functioning in line with specific procedures and standards, to identify NMS influenced by individual experiences of entrepreneurs..

In the context of presented discussion the important *research problem* should be considered as defining the specific characteristics national management styles, their influence on the selected business functioning areas: human resources management, the establishment and impact on relations with the environment, obtaining and implementing material and non-material resources.

4 THE RESULTS OF THE CONDUCTED PRELIMINARY RESEARCH

After 20 years of transformations in Poland its political, social and economic structures have become stable enough to be observed as permanent and continuous. In the course of two decades a new generation of entrepreneurs and managers has grown up and new patterns of business attitudes and behaviours were established. Some of the Polish companies have constructed original business models, e.g. regarding the approach to workers, the relation between an employee and a supervisor, attitudes to such values as: innovation, quality, knowledge. The Authors conducted research in a few small and medium enterprises. The sample is too small to put forward any generalizations, however, certain common elements of the analysed companies are well visible.

The presented case of one of the studied enterprises represents a good example of Polish NMS emerging picture.

It is an engineering company specializing in the production of high quality measurement tools for such industry sectors as electrical power, construction and telecommunication. The company represents one of the largest manufacturers of electric meters in Europe. The major part of production focuses on innovative, high-tech electric meters which are not manufactured by any other producers worldwide. The company offer reaches several dozens of countries including currently very promising and important markets as such: Russia, Ukraine and the Far East, e.g. India. New products manufactured by the company represent infrared cameras and electric energy quality meters. The company was established in 1998, since 2008 it has been operating as a joint-stock company listed at the Warsaw Stock Exchange.

Table 2. Selected NMS qualities in the analysed company

NSZ qualities	Engineering company
Company origins	The company founded by a group of professionals originating from a previous company
Preferred values	high level of professional competencies good interpersonal relations individual approach to employees' problems open expression of opinions regarding both the company and team issues creativity in thinking and functioning flexibility in performing organizational functions and roles
Basic management methods	management by competencies management by projects
Management systems	Integrated production system based on modified kaizen assumptions, quality assurance, 5S, value stream mapping, supply chain management, purchasing process management
Functional organizational structure enriched by distinguishing key cross-section processes	Owners functioning as directors and Management Board representatives: high quality, low costs, short delivery time, environment safety and protection
Motivating employees	Extended, multifactor, including a significant number of additional benefits (medical care, leisure and recreation, education, life insurance), the method for motivation staff covering both joint and separate elements depending on organizational structure (marketing, construction and design office)
Communication	open to a great extent: consultancy, support in education process, staff initiatives, encouragement for presenting ideas, the introduction of knowledge transfer programme
Career	Internal recruitment is dominant, gradual promotions, following consecutive management stages
Integrating activities	Golden, silver and bronze badges awarded to personnel for the number of years worked in the company and input in its development, carnival parties and family picnics for all employees and their families, common trips organized by particular teams, kaizen show – monthly meetings of all manufacturing department workers during which diplomas and rewards are awarded for participation and distinctive results in the suggestions presenting programme.

Source: own study

The solutions accepted in the company constitute an interesting combination of an extended motivation system combined with social benefits and visible care about employees and also friendly approach to their individual problems, long-term employment, relatively low level of employment level fluctuations, internal recruitment and promotion preference, emphasis on high professional competencies, especially with reference to specialists: electronic designers, technical and commercial consultants, as well as managers and leaders. Mutual friendliness and sympathy can be sensed in the company, support and assistance in current issues are experienced on a daily basis, personnel comes forward with interesting initiatives which extend their professional duties. Many activities are undertaken for the benefit of constructing strong relations between employees and the company. Well recognized management methods and techniques are selected and significantly modified in order to create original and integrated management systems, e.g. focused on production.

The company is respected, long-time employees with employment, remembering the pioneering phase of business development. One of the most valuable employees of the company is production director. He worked with the company for 16 years. He started as a fitter in the production of electronic components. Then he served as an assembly line operator, technician, technologist, manager of technology. His present high position in the company determines knowledge of technology and manufacturing processes, managerial skills and ability to work with people. It is well appreciated by the former managers, who are now his colleagues and subordinates. According to the director of its success decided active and enthusiastic approach to duties, perform additional tasks, continuous improvement of skills.

5 CONCLUSIONS

Observations and research by the authors of this article and research conducted by others authors [Doktór & Banaszak 2007, Misiak 2004] indicated the following characteristics of Polish enterprises:

- the desire to establish good relations between supervisors and co-workers,
- emotional relations between employees based on positive (sometimes negative) attitudes and behaviour,
- rank important personal relationships, contacts between employees are usually close and friendly,
- strong identification with an organization in terms of compassion for common fate,
- openness and even enthusiasm towards new concepts,
- company managements are concentrated on short-term goals,
- management staff and the remaining employees present negative approach to conflicts,
- formal approach to procedures, processes and terminology in the course of performing every day, routine management duties,
- flexibility in referring to the defined and written down agreement parameters,
- difficulties in maintaining the unchanging standards of activities and behaviours,
- searching for opportunities to speed up obtaining the final results.
- difficulties in defining individual responsibility,
- entrepreneurs and managers seek to avoid uncertainly and risk

Subsequent research is supposed to examine the extent to which the presented qualities constitute properties typical only for one analysed company and to what extent they can become a starting point for the identification of Polish NMS attributes. It seems, however, possible to distinguish the specific qualities which can provide an answer to the question: what is Polish effective management characterized by.

Summarizing, the Polish workers are characterized by a strong feeling of individualism, they expect tasks focused on obtaining individual goals. An opportunity for personal development and stimulating individual skills by managers is well appreciated. The majority of workers expect the continuity of employment and desire to keep their position at work.
It seems, from the perspective of management science, especially the NMS problem and the theoretical concept created on its basis open new research possibilities:

- It open new research area: identification of national factors in the construction of the emerging economies success;
- It can become an impulse for economic policy of the country by identifying the strong points of Polish knowledge-based companies;
- It has an educational advantage since offers the formula of these Polish companies description which became successful.

Sources

1. BJERKE B., Business Leadership and Culture: National Management Styles in the Global Economy Edward Elgar Publishing, Cheltenham, England, 1999, 287 p., ISBN 978-1840641714
2. BĄKOWSKA-MORAWSKA U, WITKOWSKI J., Kulturowe uwarunkowania zarządzania łańcuchami dostaw w Japonii, Polsce i Wielkiej Brytanii, Organizacja i Kierowanie, nr 4 (169), 2015, 217 p., SSN 0137-5466
3. DOKTÓR K. (ED.), BANASZAK S. (ED.), Psychologiczne i socjologiczne problemy organizacji i zarządzania, Wyższa Szkoła Komunikacji i Zarządzania, Warszawa 2007, p.1081., ISBN 978-83-88018-59-6
4. GESTELAND R., Cross-Cultural Business behaviour: Marketing, Negotiating, Sourcing and Managing Across Cultures, Copenhagen Business School Press, Copenhagen 2002., p.351, SBN: 978-87-630-0149-6
5. HAMPDEN-TURNER CH., TROMPENAARS A., Siedem kultur kapitalizmu, Oficyna Wydawnicza, Kraków 2000, p.396., ISBN 978-83-264-3915-5
6. MISIAK W., Narodowe cechy kultury organizacyjnej w biznesie, Wydawnictwo Uniwersytetu Warszawskiego, Warszawa 2004., p.180, ISBN: 83-235-0141-6
7. MORAWSKI M., NIEMCZYK J., PERECHUDA K., STAŃCZYK-HUGIET E., Zarządzanie. Kanony i trendy, Wydawnictwo C.H. Beck, Warszawa 2010, 247 p, ISBN 978-83-255-1723-6
8. SOLARZ J.K., Narodowe style zarządzania – mity czy fakty? Zakład Narodowy im. Ossolińskich, Warszawa 1984, p.151., ISBN :8304018306
9. SZABAN J., Miękkie zarządzanie. Ze współczesnych problemów zarządzania ludźmi, Wyd. Wyższej Szkoły Przedsiębiorczości i Zarządzania im. L. Koźmińskiego, Warszawa 2003.277p., ISBN 83-89437-01-5

Contact

Urszula Bąkowska-Morawska, PhD, assistant professor
Wrocław University of Economics
Komandorska street 118/120, Wroclaw, Poland
urszula.bakowska-morawska@ue.wroc.pl
tel: +48 601 680 914
Mieczysław Morawski associate professor
Wrocław University of Economics
Komandorska street 118/120, Wroclaw, Poland
mieczyslaw.morawska@ue.wroc.pl

MARKETING A OBCHOD

MARKETING

NUMBER OF PAPERS: 11



THE FARM FOOD MARKET IN THE OPINION OF SLOVAK FARMERS - PRELIMINARY RESEARCH

Malgorzata A. Jarossová

Abstract

The aim of this article is to explore the opinions of Slovak farmers about the farm food market in Slovakia. The survey was conducted in the form of an electronic questionnaire that was sent to Slovak farmers. The biggest problems for Slovak farmers according to their opinions were: insufficient state support (37.5%), unclear legislation affecting entrepreneurship (25%) and lack of workforce (18.8%). Farmers promote their products mostly at domestic events (75%) and on social networks (43.8%). According to results, contractual agreements and quantity discounts for the buyers have the most effect on sales of farm food. Only (12.5%) farmers said that they were selling their products via online store and one third of respondents (31.3%) would welcome payment for their products in the form of local currency (e.g. "Živec").

Key words: *farmers, farm foods, Slovakia, consumers*

1 INTRODUCTION

At present, many farmers working in cooperatives and in various sectors of agriculture or at family farms are confronted with various problems. One of the main problems of Slovak farmers is European subsidies. According to Slovak farmers, subsidies in Slovakia are incorrectly "set" for example compared with Poland, which prior to accession to the EU, has explored and negotiated several exceptions and changes in agricultural policy. As a result of this negotiation, Poland has better conditions in terms of subsidies than the EU average, but also the EU-12 average. The Slovak Republic has achieved significantly worse conditions for agribusiness after signing of the EU Accession Treaty. It ranks at the 5th place in the ranking of all EU member states and also has worse conditions compared to the EU average (Ministry of agriculture and rural development of The Slovak republic, 2012).

In 2015, the situation of Slovak agriculture was not too optimistic. In the first quarter of 2016, a loss of 2.2% was projected. In the following months later this lost increased to 3.6%. Prices for agricultural products were still at the low level. As a result of the unused potential in Slovakia, the negative balance of agro-commodities was reached (1.1 billion Euros, which consisted of low production of plant and animal products) (Slovak Agriculture and Food Chamber - SPPK, 2016).

The situation on the Slovak milk market was described by Professor Hrušovský: "The situation in Slovakia is still critical. For example near Bratislava is a small farm where milk and dairy products are produced at worldwide high quality. The problem is that consumers prefer milk from abroad, which reduces Slovak milk production and thus farm revenues. From the two million tonnes of milk produced in 1989 in Slovakia, currently farms did not reach even half of this amount in 2011. The big and long-standing problems for Slovak farmers are farm products sales prices, which are too high for consumers compared to their income. The most of Slovak consumers prefer to buy food products from a hypermarket, due to their lower prices. Majority of these food products are imported from abroad (from countries like Czech Republic, Poland, Hungary, Austria, Ukraine). Small percentage of

Slovak consumers prefer quality of food over it quantity and are willing to pay more for these products“(HALASOVÁ, 2016).

In many retail chains in Slovakia are sold more foreign products rather than Slovak. This report was confirmed by the Slovak Agricultural and Food Chamber. Since 2013, the Grocery and Food Authority has conducted a survey about representation of domestic and foreign foods in 54 stores in eight retail chains. Twenty-eight key food products that are most commonly purchased by Slovak consumers were monitored. In 2013, food imports accounted for 61% and Slovakian foods for 39%. In the last year 2016, this score has changed by less than a percentage point in favor of Slovak producers (SEDLÁK, 2017).

Another important problem is the lack of cooperation between the competent authorities and the state administration institutions at different levels, such as the veterinary administration, hygiene; central animal registration and the national rural development network do not cooperate with each other. They often provide to each other partial and incomplete information that varies in each district (Family farms, 2017). It is also very noticeable increasing young people's unwillingness to farm. For them, this form of business is often unattractive. The barrier of during the establishment of farms is also the fragmentation of the land. EU legislation did not solve the problem of land rearing, which would allow many entrepreneurs to buy land, or rent it, and manage it. Nowadays, it is a phenomenon that land in Slovakia often bought by foreign companies (FAMILY FARMS, 2017).

Another problem related to arable land is that its quality is reduced under the influence of modern technologies. In the past, the land was fed with livestock manure, nowadays it is nourished with mineral fertilizers and aggressive agents that prevent pests and growth of weeds. Nowadays, the soil is plowed by heavy tractors, making the soil more compressed and affecting the quality of the soil. In recent years, the land was plowed manually by farmers or landowners. Managing land with heavy techniques threatens erosion, organic matter loss, pollution and densification (MAJEROVÁ, 2017).
The aim of this article is to explore the opinions of Slovak farmers about the farm food market in Slovakia.

1.1 Methodology of the study

The survey was conducted in the period from 10 March 2017 to 9 April 2017, in the form of an electronic questionnaire containing 11 questions. Thirty farmers were selected from the website http://www.farmarsketrhy.sk/nasi-farmari/, to whose was sent the electronic questionnaire with a request for completion. The questionnaire contained closed questions. In the case of closed questions, respondents could identify more than one answer; they do not add up to 100%. Response rate was 53%.

The goal of this study was he received answers to the following questions:

1. Which farm foods are produced by our respondents?
2. Which farm food from abroad is sold in large quantities in Slovakia in opinion of Slovak farmers?
3. How do they promote their products?
4. Which business activities affecting the increasing of sale of farm food?
5. Who are the buyers of farm food products?
6. What are the main problems of Slovak farmers?
7. Do farmers sell farm food products via online stores?
8. If yes, how long the farmers sell farm food products via an online store?
9. How much increased their revenue selling farm food by Internet?
10. If the farmers are interested in paying for their product a local currency?

11. If the farmers have received state subsidies to support farm food production?

1.2 Results and discussion

The survey was attended by 53% Slovak farmers, who led businesses with different legal forms. Majority of them (50%) was self-employed person. More than one third of farmers (37.5%) lead limited liability company and 12.5% of them belonged to the cooperatives.

Sixty two percent of farmers had companies with less than 10 employees and (38%) of food producers employs more than 10 and less than 50 employees.

In our survey, one quarter of the farmers came from the Žilina and Banskobystrický Region (in each of 25%) and almost twenty percent from Trnava Region (18.8%). Only 12.5% of the respondents came from the Nitra Region and also from the Košice Region. Only one interviewed (6.2%) led his business in the Bratislava Region.

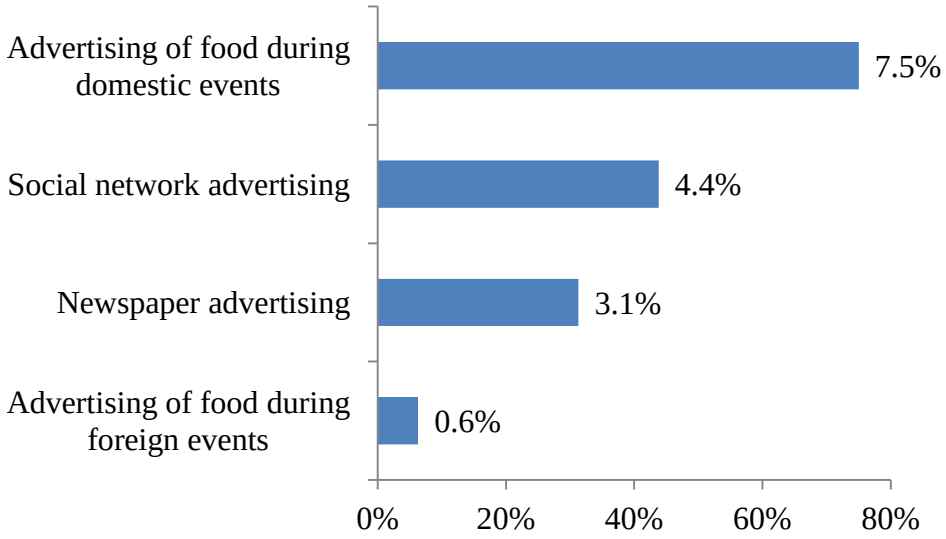
The first question concerned food products produced by Slovaks farmers. The list of food mentioned in the questionnaire contained (e.g. meat and meat products, fruits, vegetables, dairy products such as butter, cheese, milk, sheep cheese, yoghurt). More than half of the respondents (56%) produced meat and meat products and cheese (43.8%). One third of the farmers offered to consumers vegetables and fruits (31%). The smallest group of respondents produced butter (18.8%), milk (13%) and sheep cheese „Bryndza“(12.5%).

In the second question, farmers were asked to indicate which food products from abroad are sold in large quantities in Slovakia from farmers' point of view. According to Slovak farmers, they are: meat and meat products (56.3%), fruits (50%) and cheeses (43.8%). One third of respondents (31.3%) also mentioned vegetables and butter.

Product promotion is very important, especially for food, so the third question was related to the way of promotion of their food products. Based on the results, we can say that most of them promote their products at domestic events (75%).Almost half of respondents (43.8%) also advertising them on social networks and 31.3% advertise their products in the newspapers. Only one farmer (6.3%) replied that he also promotes his products at foreign events (Fig. 1).

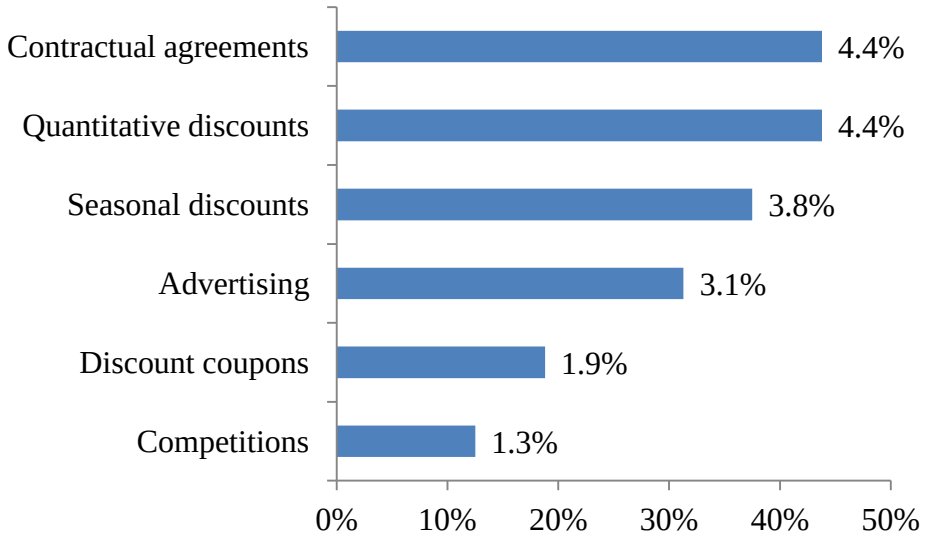
Each manufacturer has to test various "business activities" that can be successful in selling their products. Among the activities influencing on the sales increase of farm food in the survey have been included: advertising, quantity discounts, seasonal discounts, discount coupons, contractual agreements, loyalty discounts and other activities. According to results, contractual agreements and quantity discounts the most effect on sales of farm food (Fig. 2). In addition, there were seasonal discounts and advertising of food. The least effective were organized competitions.

Fig. 1: The way of advertising farm food by Slovak farmers



Source: Based on own research

Fig. 2: The business activities of Slovak affecting the sale of farm products



Source: Based on own research

With this question was linked another question related to buyers of farm food products. Farmers were asked to indicate their buyers. Among the buyers of farm food products were included: wholesalers, retailers, supermarkets/hypermarkets, small local shops, catering services and individual customers. For the most farmers (50%) the largest groups of buyers their food were individual customers. For every fifth farmer (18.8%) the largest buyers of their food products were retailers. Only 6.3% of farmers deliver their products to supermarkets/hypermarkets, catering facilities and small local shop.

The aim of the next question was to find out what are the main problems of Slovak farmers. The situation of farmers in Slovakia is difficult. The biggest problems for Slovak farmers in their opinions were: insufficient state support (37.5%), unclear legislation affecting

entrepreneurship (25%) and lack of workforce (18.8%). Only one respondent also mentioned food prices and foreign competitors (6.3% each). Additionally, 31% of Slovak respondents mentioned problems with buyers of their products which are presented in the table 1.

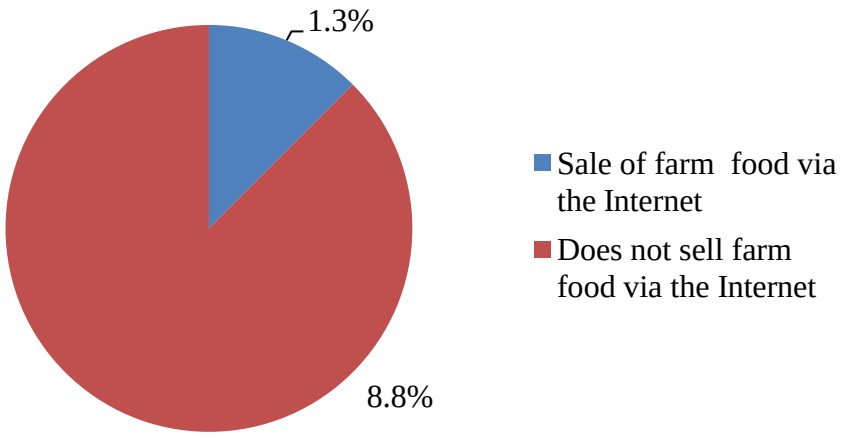
Table 1: Examples of problems of Slovak farmers with buyers/consumers

Description of the problem
"The biggest problem is when customers are unhappy and they cannot know it, we cannot fix the error if we do not know about it and the dissatisfied customer is sending bad information about our company".
„Our problem is to deliver goods to buyers in small quantities".
"Our problem is that we cannot meet the demand of buyers".
"The problem are unpaid invoices, non-compliance with the deadline for taking goods".
"Failure to comply with the contract".

Source: Based on own research

The sale of food through the Internet is getting to the forefront of Slovakian customers and therefore three more questions from this area have been asked to Slovak farmers. First of them was related to selling their food product by online store. If the farmers responded that they sell their products online, they were asked „How long they sell food products in this way?" and "How much was their revenue increased by selling food on Internet?". Only two farmers (12.5%) said that they were selling their products via online store (Fig. 3). One of the farmers said that he sells his products on Internet for 4 years and second one replied that for 7 years. The sales of food by Internet significantly increased revenues of both farmers.

Fig. 3: Sale of farm food via the Internet



Source: Based on own research

One of the current trends is the possibility of paying for products or services a regional, local currency or virtual currency. These form of payment especially, regional currency (e.g. The Chiemgauer) is very widespread in some German regions (e.g. Bavaria) and virtual currency (e.g. Bitcoin) in USA and Japan. In Slovakia exists supplementary local currency called

"Živec" (Pic. 1) that has the same value as euro. It is used independently in 2 cities in Slovakia: Bratislava and Zvolen. The penultimate question was related to payment for farm food products local currency. Only one third of respondents (31.3%) would welcome payment for their products in the form of local currency.

Pic. 1: Local currency "Živec"



Sources: http://www.zivica.sk/sk/lokalna-mena/zmysel-zivca

In the last question, farmers were asked whether they received state subsidies to support the production of farmed food. Only every fourth farmer (25%) replied that he had received state subsidies to support the production of farm food products or regional money to support producers in the region.

2 CONCLUSION

The aim of this article was to explore the opinions of Slovak farmers about the farm food market in Slovakia.

Farm foods are produced on a farm of raw material derived from or obtained from animals or farmed animals in accordance with special regulations. These products are sold e.g. in local shops, on the marketplaces and last but not least in online stores.

The sale of Slovak farm food is influenced by many factors on the demand and supply side. The primary factor that affects consumer decision-making is the price. The sale of farm food products influences, inter alia, European and Slovak legislation, which for many farmers is unclear. Another problem for Slovak farmers is European subsidies, a large number of foreign products sold in Slovakia for more favorable prices, lack of cooperation between competent authorities and state administration institutions at various levels which often provide to each other partial and incomplete information that differs in each district, insufficient state support and lack of workforce.

Farmers promote their products mostly at domestic events and on social networks. According to results, contractual agreements and quantity discounts for the buyers have the most effect on increasing sales of farm food. Only a few farmers said that they selling their products via online store and one third of them would welcome payment for their products in the form of local currency (e.g. "Živec").

Nowadays, it is possible to sell products through an online store, promote them on social networks or at various organized events in Slovakia and abroad, where customers can

personally look at products, taste them and convince themselves of their true quality. By promoting Slovak farm food, farmers can increase demand for their products and should therefore make the most of this option.

The article is an output of VEGA project number 1/0670/16 "Evaluation of integrated management systems in the context of improvement of business entities competitiveness in the Slovak Republic".

References

1. MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT OF THE SLOVAK REPUBLIC. *Problems of farmers are also in bad conditions of entry to the EU*. [online]. [Accessed: 10.12.2017]. Available at:: http://mpsr.sk/index.php?navID=265&id=5663.
2. SLOVAK AGRICULTURE AND FOOD CHAMBER – SPPK. *Slovak agroresort: Leaders lose,* Online Available [2017-12-10] on: http://www.sppk.sk/clanok/1401.
3. HALASOVÁ, H. 2016. *Farmers appeal: Drink more milk,* In Obchod. MAFRA Slovakia 2016, str. 20, ISSN 1335-2008, 29 s.
4. SEDLÁK, J. *Domestic food sales are still stagnating*, In Pravda. [online]. [Accessed: 10.12.2017]. Available at:: http://spravy.pravda.sk/domace/clanok/419225-predaj-domacich-potravin-stale-stagnuje.
5. FAMILY FARMS. *Why is the situation of family farmers in Slovakia complicated?* [online]. [Accessed: 10.12.2017]. Available at:: http://www.rodinnefarmy.sk/index.php?id=194.
6. MAJEROVÁ, S. *The Slovak farmer creates circles in the field and grows vegetables*. In Aktuality. [online]. [Accessed: 10.12.2017]. Available at: https://www.aktuality.sk/clanok/420962/slovensky-farmar-vytvara-kruhy-na-poli-pestuje-v-nich-zeleninu/.

Contact details

Dr. Ing. Malgorzata A. Jarossová
University of Economics in Bratislava
Dolnozemska cesta 1, 852-35 Bratislava
Tel: +421 267291398
email: malgorzata.jarossova@euba.sk

TESTING CUSTOMER EQUITY MATRIX ON DISTRIBUTION CHANNEL MIX

Dominikus Stadler

Abstract

On the 15th of July 2015 Amazon celebrated its 20th birthday with an event called Prime Day. For everybody who thought digital distribution is just another distribution channel, this event presented the real potential of a digital distribution channel. Looking at the history of economic science the age of product based view has moved on to a customer centred perspective. Nowadays it's nearly indispensable to evaluate firm´s marketing strategies and to identify the main drivers of the firm´s customer equity. Facing the customer equity approach it´s necessary to investigate the customer equity (CE) model and the customer lifetime (CLV) model. Therefore the right distribution channel mix can be identified as a major driver with a huge influence on a companies´ customer equity rate.

Key words: *distribution channel, channel mix, customer equity, marketing mix, 4P´s, Amazon, multi-channel distribution*

1 INTRODUCTION

On the 15th of July 2015 Amazon celebrated its 20th birthday with an event called Prime Day. For everybody who thought digital distribution is just another distribution channel, this event presented the real potential of a digital distribution channel. Amazon received 34 million sales that day and almost 400 orders per second. This outstanding and incontrovertible success leads to the question, how digital distribution channels can change traditional sales environment and furthermore how the distribution channel mix influence the customer equity of a company? (Stoller, 2017, p. 20) The Financial Times titled "Consumers absolutely love Amazon - it makes their life more bearable". Moreover investors love companies like Amazon with their extremely high customer focus, too. But how can Investors find such information about customers and their value in a balance sheet or how can they predict any future development from financial valuation models? (Ito, 2017, pp. 1-2) For example in traditional analysis the Return on Investment (ROI) is used to evaluate and compare the success of activities and investments. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 1) The Return on Investment is nothing less than the sum of provided resources and the resultant outcome. However this method might provide disadvantages, when it comes to measure a marketing strategy. Or even more to make a marketing strategy financially accountable. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 2) Looking at the history of economic science the age of product based view has moved on to a customer centred perspective. Nowadays it's nearly indispensable to evaluate firm´s marketing strategies and to identify the main drivers of the firm´s customer equity. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 5) Even more the customer equity framework gives firms a tool to calculate and rank their strategies on a mid and long-term perspective. Finally the customer equity approach makes the influence of distribution channel mix measurable and accountable. (Rust, Lemon, & Zeithalm, 2004, p. 109) Therefore this paper will analyze the different distribution channels from a marketing perspective with regard to the 4-P model of Kotler to gain connections and identify its influence on the customer equity of a company.

2 4P ANALYSIS & DISTRIBUTION CHANNEL MIX

A traditional marketing approach to analyze a case like the Amazon Prime Day is to discuss the event through four dimensions. Through the four tactical levers product, place, promotion, price. (Ruskin-Brown, 2006, p.68)

- Product: Amazon offered over 253 million products in 2014 and many additional services
- Place: through its online Platform Amazon reached to be the giant with a huge market place. Amazon holds 46 percent of the online retail market and pursues warehouses with a total space of over 120 million square feet
- Promotion: through digital promotion an big data Amazon provides a large reach actual marketing expenses diver from 4,7-4,9%
- Price: the market capitalization gained by Amazon is about $448 billion

Amazon´s stock increased since 2012 by 300 percent and substitute 295.000 jobs since founding. (Stoller, 2017, p. 21) In general distribution channels can be differentiated in in-store, mail-order and electronic mediums. (Alptenkinoglu, & Tang, 2005, p.802) Moreovera rudimental differentiation in to analog and digital distribution channel can be allocated.

3 CUSTOMER EQUITY

Facing the customer equity approach it´s necessary to investigate the customer equity (CE) model and the customer lifetime (CLV) model. Both are directly related and customer equity is the aggregation of a firms expected customers lifetime values considering existing and new attracted customers. (Hogan, Lehmann, Merino, & Srivastava, 2002, p. 30) Therefore customer equity can be defined as the future oriented contribution of the customers to the company value. (Blattberg, Getz, & Thomas, 2001, p. 17) A mathematical approach is given by following formula.

$$CE = CLV * market\ share * market\ size$$

Figure 1: The Customer Equity Formula

Where customer equity is the product of customer lifetime value, the relevant market share and the total market size. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 12) Where customer equity is the product of customer lifetime value, the relevant market share and the total market size. To operationalize the customer lifetime value (CLV) it has to be broken down in its several items.

$$CLV = \sum_{t=0}^{T} \frac{(p_t - c_t) r_t}{(1+i)^t} - AC$$

Figure 2: The model representation

Where pt is the price paid by a consumer at time t, ct are the direct costs servicing the customer at time t, I is the discount rate or cost of capital for the firm, rt is the probability of customer repeat buying or being alive at time t, AC are the acquisition costs and T the time horizon for estimating the customer lifetime value. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 13)

4 CUSTOMER EQUITY MODELS

While the theoretical literature review on customer equity several models appear. This paper will concentrate on the three main and different types of customer equity models and select a suitable one for further research.

4.1 Black-box model

The "black-box model" based on a capital value formula in combination with an additional customer loyalty rate. Therefore the customer lifetime value of each customer has to be summed up. The controlling potential of a black-box model is highest with existing customers. (Reinartz & Kumar, 2000) The influence on new customers is not sufficient covered with this approach. (Blattberg, Getz, & Thomas, 2001)

4.2 Behavourial model

The "behavioural model" based on a multidimensional approach. This customer equity model is driven by different success potentials and customer relation measures. The management potential of this model seems to be critical. (Burmann, 2003)The psychographic environment variables are transformed into monetary measures. Therefore this approach is still controversial discussed. (Blattberg, Getz, & Thomas, 2001)

4.3 Hybrid model

The "hybrid model" can be seen as synthesis of both, "black-box model" and "behavioural model". (Burmann, 2003) The "hybrid model" uses specific behavioural measures and connects them with a mathematical formula based on a capital value approach. (Rust, Lemon, Zeithalm, 2004) For further discussion the hybrid-model based on RUST, LEMON & ZEITHALM research shows the most accordance and theoretical exercise in the area of customer equity approach.

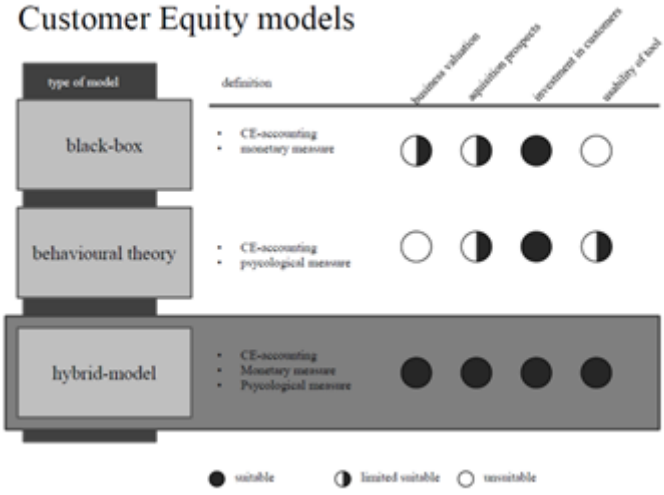


Figure 3: Contrast of Customer Equity models in style of Burmann, 2003

5 THE HYBRID CUSTOMER EQUITY MODEL

This hybrid customer equity model is based on three main drivers: value equity, brand equity and relationship equity. (Lemon, Rust, & Zeithalm, 2001, p. 22) To analyse the drivers for customer equity it's necessary to keep in mind that consumers are switching between brands. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 7)

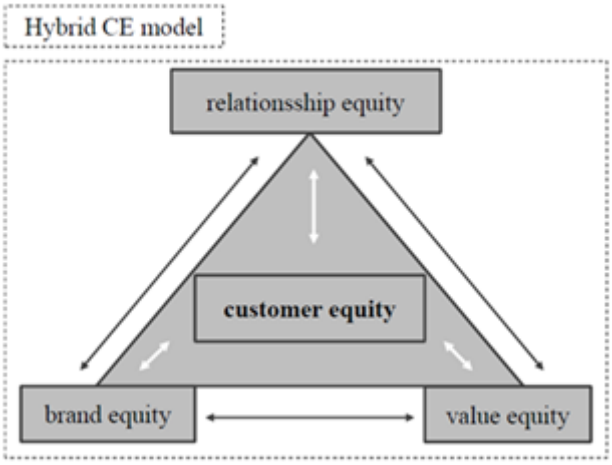


Figure 3: Hybrid Customer Equity model of RUST, LEMON& ZEITHALM

5.1 Brand Equity

First of all brand equity is based on image and meaning in the customers mind. The brand equity of a firm can attract new customers as well as work as a reminder to keep services and products in customers mind. Moreover brand equity can work as a connector to the firm and their products. (Lemon, Rust, & Zeithalm, 2001, p. 22) The importance of a brand is not new also the importance of brand equity was already mentioned in earlier days. But the connection and integration of brand equity in a customer equity model brings up the linking connection in a holistic approach. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 5) Additionally brand awareness as well as strong consumer attitudes through direct marketing is playing an important role in building or maximizing a firm's brand equity. (Lemon, Rust, & Zeithalm, 2001, p. 2)

5.2 Value Equity

Second value equity is the outcome of what is given up for what is received. If the brands promise meets the expectation of the firms customers. Moreover value equity reproduces the rational and objective part of the customers' decision making process. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 5) The ratio of a products´ price, quality and customer convenience is driving the firms´ value equity and in the end also the customer equity. (Lemon, Rust, & Zeithalm, 2001, p. 22)

5.3 Brand Equity

Finally high brand equity and high value equity may not be enough to hold customer to the firm. There has to be glue between customers and the firm. The definition of relationship equity is the willingness of a customer to stay with a brand and a firm. (Lemon, Rust, & Zeithalm, 2001, pp. 22-23) Main issues on brand equity are the switching costs of the customers. All relationship programs aim to increase those switching barriers. (Aravindakshan, Rust, Lemon, & Zeithalm, 2004, p. 7)

6 CONCLUSION

Looking at these different customer equity models and different methods, the main drivers have a huge influence on a firms´ long-term success. This framework enables deeper analysis on critical drivers of customer equity and may lead to more findings for example in channel management to maximize the long-term performance of a firm.

Therefore the right distribution channel mix can be identified as a major driver with a huge influence on a company's customer equity rate. Based on the results of this paper the following matrix should illustrate the conceptual framework for further research.

			customer equity CE = BE+RE+VE		
			brand equity	relationship equity	value equity
distribution channel	digital	product	d*p1= BE1	d*p1= RE1	d*p1= VE1
		place	d*p2= BE2	d*p2= RE2	d*p2= VE2
		promotion	d*p3= BE3	d*p3= RE3	d*p3= VE3
		price	d*p4= BE4	d*p4= RE4	d*p4= VE4
	analog	product	a*p1= BE5	a*p1= RE5	a*p1= VE5
		place	a*p2= BE6	a*p2= RE6	a*p2= VE6
		promotion	a*p3= BE7	a*p3= RE7	a*p3= VE7
		price	a*p4= BE8	a*p4= RE8	a*p4= VE8

Table 2: Research framework combining customer equity and distribution channel

For further research the schwn matrix should be used. The aim is to discover relations between the different factors and their in fluence on Customer Equity.

Sources

1. Aravindakshan, A., Rust, R. T., Lemon, K. N., & Zeithalm, V. A. (2004). Customer Equity: Make Marketing Strategy Financially Accountable. Journal Of System Science and Systems Engineering, 1-17.
2. Alptenkinoglu, A., Tang, C., S., (2005). A model for analyzing multi-channel distribution systems. European Journal of Operational Research 802-823.
3. Blattberg, Getz, R., & Thomas, G. (2001). Customer Equity. Boston: Harvard Business School Press 1-228.
4. Burmann. (2003). Customer Equity als Steuerungsgröße für die Unternehmensführung. Zeitschrift für Betriebswirtschaft, 113-138.
5. Gupta, S., Lehman, D. R., & Stuart, J. A. (2002). Valuing Customers. Journal of Marketing, 7-18.
6. Hogan, J. E., Lehmann, D. R., Merino, M., & Srivastava, R. K. (2002). Linking customer assets to financial performance. Journal of Service Research, 26-38.
7. Ito, T. (2017). Consumers absolutely love Amazon — it makes their lives more bearable. Financial Times, 1-5.
8. Lemon, K. N., Rust, R. T., & Zeithalm. (2001). What drives Customer Equity? Marketing Management, 21-25.
9. Reinartz, & Kumar, W. (2000). On the Profitability of Long-Life Customers in a Noncontractual Setting: An Emperical Investigation and Implications for Marketing. Journal of Marketing, 17-35.
10. Rust, R. T., Lmeon, K. N., & Zeithaml, V. A. (2004). Retrun on Marketing: Using Customer Equity to focus Marketing Strategy. Journal of Marketing, 109-127.
11. Ruskin-Brown, I. (2006). Mastering Marketing, Thorogood London, 68-102
12. Stoller, M. (2017). The Return of Monopoly. New Republic, 20-25

Contact
Dominikus Stadler
Universitate Latvijas,Riga
An der Knableite 15, 82487 Oberammergau, Germany
Tel: +49 151431 35 604
email: dominikus.stadler@mauser.com

ADVERTISING IN THE 21ST CENTURY - CHANGES IN THE FINANCIAL SECTOR

Miriam Mattová

Abstract

Innovation and change is increasing in every business sector. The process of change is an important management skill that should be adequately handled by all. Advertisements are important in order to be able to change the attitudes towards the product or service, and to influence mainly the public opinion and gain all types of support from the public. This means, development of technology in advertising brought unlimited amounts of increased workflow and processes, therefore the financial sector had to go through multiple changes from mainly the marketing and advertising sector. The awareness, quality, growing competition, and technology advances are the most important basic needs of financial advertising.

Keywords: *Finance, Advertising, Innovation, Change, Business sector, Marketing, Awareness, Financial advertising, Increased workflow, Technology advances*

1. Introduction

The change process plays an important role in every fact of life. Every business must have the ability to master the change process due to the fact of it being one of the most important management skills. In marketing and finance the importance of the change process in consistently increasing and the right skills are crucial.

Marketing plays a big and important role in every business sector of today's world. The financial sector keeps growing all around the world due to globalization and the growth of competition. Due to the amount of competition in the financial sector, the sector had to offer innovations and a variety of products and services with top quality. In order for the customer to obtain the needed information about the quality of the product, the marketing department comes into picture, which helps the financial institution change the customer's perspective or inform/reinforce the viewer towards the advertised product.

Marketing is built on communication of the sponsor and advertiser, where the adviser develops/creates an idea which is paid by the sponsor. The basic meaning of advertising is to communicate information efficiently to groups of individuals, which are designed to generate increased consumption of the given product or service through a designed brand image. Advertisements are also important in order to change the attitudes towards the product or service to influence mainly the public opinion and gain all types of support from the public. The viewer's attitude on the product or service is determined by multiple factors (packaging, services, advertising, customers advice, people values and many others). But the most important factor is played by the marketing sector because advertising has an important economic role in the introduction of a new product or service. These advertising messages are communicated through major mediums like TV, radio, newspapers, magazines, video games, social media, the Internet, movie theaters, and billboards. Development of technology and the financial sector brought unlimited amounts of increased workflow and processes, therefore the financial sector had to go through multiple changes from mainly the marketing and advertising sector.

2. How advertising affects the financial sector

Marketing plays an important role in our everyday lives. This sector generates important awareness between the consumer and the product or service, which is being advertised or offered. To continue it also creates an important relationship between the consumer and the company. For example "if a bank offers the home loans at an attractive EMI's, Fix account with more rate of interest, A post office has to offer various saving schemes, corporate loans, the financial intuitions by adopting the best mode of communication so that the people will be known to their offerings"(Prajwala, n.d). Due to the changes in the society, changes in behavioral patterns and changes in technology, new advertising channels have been created (For example Flash ads or Pop-up ads on the Internet). The privatization of the financial sector increased competition between the financial institutions, which led institutions to build their own market share by offering a variety of products designed for a certain targeted audience. The financial companies therefore claim uniqness of their products or services, which try to impress the targeted audience. Due to growing competition the marketing and other advertising strategies have a significant role as far as the promotion of these financial services or products are concerned.

3. Transformational changes in the financial sector

In the 21st century the financial institutions are growing and therefore the field of marketing has also been developing and changing. Due to the expansion of the customer options, the commercial banking industry must have more aggressive competition in order to sustain on the market and be profitable. In general the financial industry is being altered with innovation, new opportunities and especially government intervention (What impact does government regulation have on the financial services sector, 2015).

Increasing knowledge in the society is pushing the financial sector into adopting international practices in order to remain profitable. With the changes in the financial sector, advertising and marketing campaigns are a priority in order to gain clients and promote offerings of the company (Marketing and advertising tips, n.d.).

4. Financial products and services

There are multiple financial products and services in the industry, which require advertising. Deposits are one of the most important features, which attract new consumers into banks. In order to attract savings of consumers, "the bank needs to provide every sort facility and inspiration to them and collect the scattered savings of the society" "(Prajwala, n.d). The other types of accounts that are generally advertised in the banking sector are:

- Current accounts
- Saving bank accounts
- Fixed deposit accounts
- Loans
  - *Housing loans*
  - *Auto loans*
  - *Credit card debt*
  - *Personal loans*
- Insurance
  - *Life insurance*
  - *Auto insurance*
  - *Home insurance*
  - *Gap insurance*
  - *Health insurance*

- *Accidental insurance*
- *Automobile insurance*
- *Property insurance*
- Bank overdraft
- Corporate bonds

5. Trends and competition in the banking sector

The stiff competition that developed in the 21st century has various forms. The non-banking financial companies form a big threat to standard banks in the corporate world. Due to this clutter in the financial sector promotion, advertising and marketing has become an integral component of the financial products and services, which is an important guide to consumers. Advertising trends reflect the dynamics of the marketing industry and its contribution and benefits to the industry. In Television ads consumers could have noticed the rise of advertisements from the insurance sector by 35% in year 2009, and the rise of banking services and products by 44%. In the same year Print advertisements related to the banking sector increased by 60% in the first six months in year 2010. The bank marketing has become very interesting and complex because it requires knowledge of multiple factors like economics, sociology, banking, psychology and especially marketing (Juyal, n.d.). The main success point of a good marketing campaign lies in the systematic and professional approach towards satisfying the consumers needs (Juyal, n.d.). Therefore they key element is to satisfy the consumer and innovate the marketing development.

6. Basic needs of the financial advertising

1. Awareness
   Development in technology, made consumers aware of the changing economical environment. Financial needs and wants of consumers have increased into new forms such as quick cash, accessibility, money transfers, financial advice, and many more
2. Quality
   Fast changes that happened in the 21st century opened up the economy. These changes affected every financial activity as well. Due to the numerous amounts of competitors the quality factor drove the market and banks either into success or failure. Therefore nowadays it is very important for marketing companies and financial companies to focus on the quality of the products and services.
3. Growing competition
   The increasing competition is due to the system within. The competition is not only local but also foreign which offers added value services. "The foreign commercial bank with their superior technology, speed in operations and imaginative positioning of their services has also provided the necessary impetus to the banks to innovate and complete in the market place." (Talukder, n.d.)
4. Technological Advances
   Technological development is due to innovation and product development especially as a result of dramatic growth of the Internet and investment banking areas. The technology has made the execution of work done faster and showed greater availability to the public.

"Banking and Non banking Financial Companies are purely service industry which satisfy the financial requirements of the customers and provide various types of banks and allied services to their clients" (Prajwala, n.d.). Different consumers belong or are identified with different types of economies with different locations and different professions. Verbal and written communication between the industry and the consumer create a better understanding of the needed and wanted requirements. Therefore if a company needs to customize according to

consumer needs and wants there is a need to create a working marketing plan and strategy, which will result in an effective promotional approach.

7. Main steps of a marketing plan in the financial industry

Due to the changing development and multiple changes in the financial industry the importance of marketing and its systematic approach cannot be skipped. Firstly it is important to identify the consumer's financial requirements, which will determine the most appropriate banking service to meet the needs and wants of the consumer. Secondly the pricing of the service or product will be developed, and this will bring conclusions in setting up individual bank approaches. Lastly the predictions and research of future market needs will be key in developing the current advertising and promotional approaches and also the future marketing approaches.

Technology generally increases the cost effectiveness and made banking products and services affordable and accessible. Effective use of technology in general adds to the growth of the financial sector, which significantly changed the marketing process, and the need of the marketing industry in the financial sector.

8. Costly Changes

The dilemma every CEO faces is the increased tempo of change, which is affecting every part of each business. The changes are very costly and yet the costly change does not need to reach predicted results. It is very important to make a marketing effort to adapt to change while making sure it reflects the correct purpose and the right image. Not all innovations are equally significant, some changes can increase functionality or some can increase awareness or many others. In my opinion there are three main effects that can be created due to change.

Firstly the wants and needs of a consumer play an important role in creating and developing a new and profitable product or service. Nowadays it is very hard to understand the consumers due to the fact of the increasing rate of change. The instability of the sources of market information change needs and wants on a daily basis, which means the product or service can be directed and timed incorrectly. As a marketing vice president said: "My company's sales output can't be any better than my intelligence input" (Hidalgo,2015). In my opinion a form of stability has greatly decreased, and therefore it is very hard for a sector to predict its future consumer trends. The growth of the teen population, increasing income per capita and the growing mobility of our population reflects on the decreased stability of consumers. To continue the consumer preferences are becoming very unstable, varied, flexible and especially demanding. This can be seen on sale potentials and need of multiple segmentations (submarks are created with its own demands, traits and sale approaches).

Secondly the developing and growing types of marketing research (both quantitative and qualitative) shows that if the quality of the research and the materials are on a good level they will most likely contribute positively to the growth of the company. For example "according to a national study by the AMA, nine out of ten companies with sales of $25 million or more had at least one marketing researcher on their staff" (Hidalgo, 2015). Today it is seen that the most marketing research is focused on the market potential (for new products and products that have already been on the market). The market potential includes data about customers and there buying needs and wants, advertising effectiveness, market trends and characteristics and sales analysis and results. I can say that marketing research can be the key to help solve issues concerning the future management problems. For example

9. Conclusion

Innovation that grows each year makes organizations grow and transform due to the changes that need to be taken into consideration. Changes in the environment and the banking sector have transformed due to the increasing amounts of innovations in products, technology, processes, services, business models, systems, regulations and also governance. The information technology center has revolutionariesed the financial industry especially the banking sector. To continue transaction costs have changed due to electronic banking and opened up to wide range of new opportunities the financial sector has decreased its boundaries and made 24/7 access. Next the innovations in general are unpredictable and cannot be forecasted. This means creativity is an important factor of success. Lastly a systematic combination of different advertising, marketing and promotional strategies is needed in order to make customers aware about products and services. This is all managed through marketing practices in the financial sector, which means there is a need to supply and transmit very accurate information to the consumer. As the financial industry is going through revolutionary transformation due to the development of the IT sector, marketing is a key part of success due to the numerous amounts of competitors on the market. In other words if a company is not alert and does not focus on the consumers needs and changing demands the complexities of the marketplace will end up in a disaster.

Sources

1. Juyal, A. (n.d.). Marketing of Banking Services. Retrieved May 24, 2017, from http://www.academia.edu/4323847/Marketing_of_Banking_Services
2. Hidalgo, C. (2015). Changing the Marketing and Sales Mind-set. Driving Demand, 61-74. Retrieved July 31, 2017, from http://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-changing-face-of-marketing
3. Marketing and advertising tips. (n.d.). Retrieved May 24, 2017, from http://www.businessballs.com/market.htm
4. Prajwala, D. P. (n.d.). A study on home loans with reference to SBI. Retrieved May 19, 2017, from https://issuu.com/sanjaykumarguptaa/docs/a-study-on-home-loans-with-reference-to-sbi
5. Talukder , M. J. (n.d.). Importance of Bank Marketing. Retrieved May 24, 2017, from http://bankingstudyguide.blogspot.sk/2014/11/importance-of-bank-marketing.html
6. What impact does government regulation have on the financial services sector? (2015, March 03). Retrieved May 24, 2017, from http://www.investopedia.com/ask/answers/030315/what-impact-does-government-regulation-have-financial-services-sector.asp

Contact

Miriam Mattova M.A.
Pohronska 11, 83103 Bratislava
+421 904 403 998
miriam.mattova@hotmail.com

THEORETICAL LITERATURE REVIEW ON SALESPEOPLE CUSTOMER-ORIENTED SELLING BEHAVIOR

Alfred Konrad

Abstract

It is now 35 years ago since Saxe and Weitz developed the concept of customer-orientation selling behavior. Within that time, it has become a well-accepted construct. Saxe and Weitz identified seven dimensions of customer-oriented selling behavior which characterize this selling approach. Despite the general recognition new researchers criticized the model and developed a new conceptualization with new dimension to better reflect customer-oriented selling behavior.

Keywords: *customer-orientation selling behavior*

1 INTRODUCTION

It is now 35 years ago since Saxe and Weitz developed the concept of customer-orientation selling behavior. Within that time, this construct has become a well-accepted model of customer orientation for sales people and has been used in a variety of ongoing research. Especially the question of how the customer orientation of sales staff influences the customer satisfaction and the performance of the individual sales employee has get into the focus of various research projects. Particularly in the area of retailing high-priced goods, the relationship between the customer and the seller is still a crucial criterion for the success or failure of a firm, because products in this segment are sometimes complex and require explanation due to the individuality desired by potential customers. But even for products with little differentiation, the salesperson can make the difference between a successful and unsuccessful firm by creating a value through his advice. Especially in the B2C retailing. The goal of this paper is to reflect the concept of customer-orientation selling behavior developed by Saxe and Weitz and to show extensions of other researchers to get an expanded look at the topic of customer orientation in the sales context. It should also show what the term of customer-orientation selling stands for.

2 CUSTOMER-ORIENTED SELLING BEHAVIOR

The origin of the Salesperson´s customer orientation is the marketing concept which itself is defined as an integrated, organizational-level approach providing customer satisfaction and establishing mutually benefical, long-term relationships with it´s market (Kotler 1980). Starting from this comprehensive marketing approach and the changing environment which firms and the salesforce were facing at and also the changing paradigm from transactional to relationship behavior an integrated concept at the buyer-seller level was necessary (Hellmann 2016). Basically, two dimensions of the seller's behavior are differentiated in the literature: the customer orientation and the sales orientation of a salespeople. Today customer orientation of salespeople is central to modern sale theory (Cross et al. 2007).

Sales Orientation – Customer Orientation (SOCO) by Saxe-Weitz 1982

The concept of customer-oriented selling was introduced by Saxe and Weitz in 1982 and can be viewed as the practice of the marketing concept at the individuel level between the salesmen and the customer of a firm (Saxe und Weitz 1982). The marketing concept itself is an integrated, companywide approach in which all of the firm´s activities are directed toward providing customer satisfaction and establishing mutually benefical, long-term relationships

with its market (Schwepker Jr. 2003). Salesperson who are customer oriented take actions aimed at increasing long-term customer saitsfaction instead of actions that may lead to a short-term sales success but sacrificing the customer interests (Weitz 1981).
Saxe and Weitz itself identified seven characteristics of customer orientation based on literature reviews and field interviews with managers. The domain areas are:

1 The desire to help customers make satisfactory purchase decisions
2 Helping customers assess their needs.
3 Offering products that will satisfy those needs.
4 Describing products accurately.
5 Adapting sales presentations to match customer interests
6 Avoiding deceptive or manipulative influence tactics.
7 Avoiding the use of high pressure.

The autor´s developed an instrument for assessing the degree of customer-oriented selling. The so called SOCO measure consist of 24 items, 12 of which assess the degree of salespeople´s degree of customer orientation and 12 of of which assess the degree of salespeople´s selling orientation. Since developing the construct the SOCO scale experienced a variety of modifications (Schwepker Jr. 2003). A lot of research is devoted to the reduction of items for example Thomas, Souter and Ryan (2001) developed a ten-item version with a high realibity and validity with little information loss (Thomas et al. 2001) which was reviewed and confirmed in specific settings (Periatt et al. 2004).
The two constructs of customer orientation and sales orientation cold be seen as opposites, so that sales-oriented behaviors, with the primary goal of closing the deal, diminish the extent of customer-oriented selling (Haas 2006). However, it is unclear to what extent these two behaviors influence each other and whether the sales behavior has a negative effect on the customer-seller relationship (Müller 2009)
Haas characterize the customer-oriented selling behavior as two-dimensional by combining the seven characteristics into two dimensions. Dimension one means obtaining and brokering of purchase-relevant information by the seller (decision support of the customer) and dimension two means behaviors to avoid a conclusion-oriented influencing of the customer (avoiding selling pressure on the customer) (Haas 2006).
Relational Customer Orientation (RCO) by Haas 2006
In fact that the sales environmment has changed dramaticallly the construct of Saxe and Weitz has to call into question (Homburg et al. 2011). Researchers doubt that the two dimensions can explain adequately the constructive of customer-orientation sufficient (Schwepker Jr. 2003). For a further criticism see Müller 2009. As a result, Haas extended the construct of customer-oriented selling behavior by one dimension. As a third dimension he sees the behavior of a salesperson to improve the mutual relationship between buyer and seller. This behavior manifests itself in particular as a salesperson having a pleasant appearance, building a personal relationship with the customer and expressing their appreciation (Haas 2006). Homburg et. al. terms this behavior as „*relational customer orientation*“ and define it as a set of behaviors aimed at establishing a personal relationship with customers (Homburg et al. 2011).

Dimension	Saxe/Weitz 1982	Haas 2006
decision support of the customer	X	X
avoiding selling pressure on the customer	X	X
developing a positiv climate		X

Table 1 Comparison of the dimensions of customer-orientation selling bahvior by Saxe/Weitz and Haas

New conceptualization of customer orientation by Singh et al. 2012
Based on their review of extant literature on customer orientation Singh et al. found the current conceptualization of salesperson´s customer orientation have several limitations. They complain in the constructs of Wetz et al. important facts like creating and delivering value to customers, building long-term customer relationships, providing information to customers and making efforts to understand and meet latent customer needs. (Singh und Koshy 2012) As a result they developed a new multi-dimensional construct for conceptualiazing the Salesperon´s customer-orientation. They defined Salesperson´s customer orientation as:
„Customer-centric behaviors, which includes gathering and disseminating imformation relevant for customers, to understand and continuously fulfill their hierarchy of latend needs, and to keep them satisfied by creating and delivering value throug long- term relationships.“
(Singh und Koshy 2012)
Their conzeptualization of customer-oriented selling contains six dimensions:

1 Gathering and disseminating information to customers.
2 Understanding expressed and latent customer needs.
3 Fulfilling customer needs continuosly.
4 Creating & delivering value to customers.
5 Sustaining long-term customer relationships.
6 Building customer satisfaction. (Singh und Koshy 2012)

The development of an adequat measure of these six domains has been missing so far.

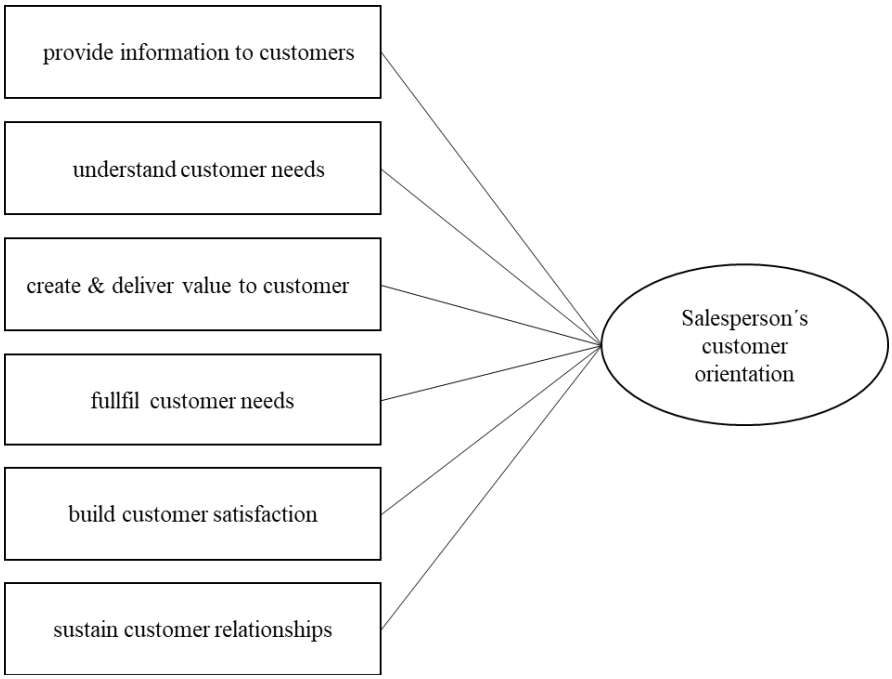


Figure 1 six domain areas of customer-orientation by Singh et al. 2012

3 CONCLUSION

Looking at these different approaches of customer-oriented selling behavior the basic idea behind the construct of Saxe and Weitz is still valid. However, extensions have incorporated the current state of affairs and changes into new constructs that better describe the term customer-orientation selling. A general statement, which explains best the structure of

customer orientation is currently not possible. Empirical reviews of the other models should be made to confirm their validity.

Sources

1. Cross, Mark E.; Brashear, Thomas G.; Rigdon, Edward E.; Bellenger, Danny N. (2007): Customer orientation and salesperson performance. In: European Journal of Marketing 41 (7/8), S. 821–835.
2. Haas, Alexander (2006): Wie wirkt das kundenorientierte Verkaufen auf die Kundenzufriedenheit mit der Beratung? Eine Analyse unter Berücksichtigung der Interaktionen zwischen den Dimensionen des Verkäuferverhaltens. In: Marketing: Zeitschrift für Forschung und Praxis 28 (4), S. 236–246.
3. Hellmann, Janina (Hg.) (2016): Der Einfluss des Mitarbeiterverhaltens auf die Kundenzufriedenheit – eine wissenschaftliche Analyse empirischer Befunde. Unter Mitarbeit von Univ.-Prof. Dr. Margret Borchert. Nr.4. Duisburg
4. Homburg, Christian; Müller, Michael; Klarmann, Martin (2011): When Should the Customer Really Be King? On the Optimum Level of Salesperson Customer Orientation in Sales Encounters. In: Journal of Marketing 75 (2), S. 55–74.
5. Kotler, Philip (1980): Marketing management. Analysis, planning, and control. 4. ed. Englewood Cliffs, NJ: Prentice-Hall.
6. Müller, Michael (2009): Effektives Verhalten von Vertriebsmitarbeitern im Kundenkontakt. Eine branchenübergreifende Untersuchung. Zugl.: Mannheim, Univ., Diss., 2009. Wiesbaden: Gabler (Gabler Research).
7. Periatt, Jeffery A.; LeMay, Stephen A.; Chakrabarty, Subhra (2004): THE SELLING ORIENTATION-CUSTOMER ORIENTATION (SOCO) SCALE. CROSS-VALIDATION OF THE REVISED VERSION. In: Journal of Personal Selling & Sales Management 24 (1), S. 49–54.
8. Saxe, Robert; Weitz, Barton A. (1982): The SOCO Scale. A Measure of the Customer Orientation of Salespeople. In: Journal of Marketing Research 19 (3), S. 343–351.
9. Schwepker Jr., Charles H. (2003): CUSTOMER-ORIENTED SELLING. A REVIEW, EXTENSION, AND DIRECTIONS FOR FUTURE RESEARCH. In: Journal of Personal Selling & Sales Management 23 (2), S. 151–171.
10. Singh, Ramendra; Koshy, Abraham (2012): A new conceptualization of salesperson's customer orientation. In: Mrkting Intelligence & Plan 30 (1), S. 69–82.
11. Thomas, Raymond W.; Soutar, Geoffrey N.; Ryan, Maria M. (2001): The Selling Orientation-Customer Orientation (S.O.C.O.) Scale. A Proposed Short Form. In: Journal of Personal Selling & Sales Management 21 (1), S. 63–69.
12. Weitz, Barton A. (1981): Effectiveness in Sales Interactions. A Contingency Framework. In: Journal of Marketing 45 (1), S. 85–103.

Contact

Alfred Konrad
Obere Knorrenbergstr. 1
38889 Blankenburg (Harz), Germany
Tel: +49 17615002202
email: alfred.konrad@teamkonrad.com

COLOURS AND EMOTIONS IN TV ADVERTISING BY RETAIL CHAINS

Klaudia Žarnayová, Daria Gunina

Abstract

This study focuses on the analysis of mass media communication on the retail chain market in the Czech Republic and contains an analysis of the colours and emotional appeals in the TV commercials aired on Czech TV channels. The study is based on knowledge of mass media communication, psychological aspects, and the emotional appeals used in TV commercials. The results do not support the assumption that companies with a smaller market share run more intensive advertising campaigns in order to gain a higher market share. The subsequent correlation analysis indicates that there is a statistically significant relationship between the volume of advertisements and the financial strength of companies. No significant relationship was found between the volume of advertisements and the age (presence on the market) of the companies. The market leaders run more intensive marketing campaigns than their challengers or followers and thus, using either one or the other, expand the total market or the market share strategy. This study can contribute to the theory of TV advertising effectiveness, media planning, and effective media space usage. The practical implications emphasize the different impact of particular factors on advertising effectiveness.

Keywords: *mass media communication, TV commercial, retail chains, emotions, colours*

1 INTRODUCTION

Two-thirds of the retail chain market in the Czech Republic consists of foreign retail chains, which is the highest share in Europe. As a result of this, the traditional Czech market is fighting for survival (Economia Inc., 2016). Czech consumers are enjoying purchasing from the retail chains, which is also confirmed by the regularly growing trends. Retail chain sales have been growing regularly since 1993 (Pernica, 2012). From the point of view of the formats of the retail chains, Czech consumers especially prefer hypermarkets, whose popularity is still growing (Mistoprodeje, 2016). A supermarket called Kaufland has the strongest market position and is the most popular chain on the Czech market in 2017. The second is Ahold and the third is Albert. On the other hand, the COOP retail chain has the lowest sales (Mistoprodeje, 2016).

The retail chains aim to impress consumers in various ways and to favour themselves against competitors. This is evidenced by the news and improvements in services provided such as Scan and Go. They are also attempting to understand their customer's needs and aim to ensure long-term cooperation (Kreditech, 2015). The success of the retail chains is greatly facilitated by mass media communication through various media. It is realistic to believe that they maintain their position on the market through the regular placement of TV commercials.

Mass media communication is an essential and indispensable part of the existence of many companies and impacts the everyday lives of people within a short time and a large area. This research is dedicated to the issues of mass media communication from the point of view of television advertising spots created by the retail chains. Only television commercials were analysed in this study, as audio-visual media impacts the eyesight and hearing of consumers; its impact on the viewers is more intensive than other media exposure. Television is still the most dominant media of today. Watching TV in the Czech Republic is currently on the increase and is influenced by the overall development of society and its life cycle (Nielsen

Admosphere Inc., 2017). The most widely aired ads in 2016 were on TV (Media guru, 2017). With a market share of almost 45%, TV dominated the advertising market in 2015 (SPIR, 2016).

TV ads were analysed in terms of colour usage and due to the colour analysis, it is possible to apply the psychological significance of colours and define the emotions that they can subconsciously induce in consumers. In relation to the research objectives, the following research questions were set out:

- Q1: How did the mass media communication activities of the retail chains differ in the Czech television market in 2016?
- Q2: What colours were used in TV commercials by different retail chains?
- Q2: What emotional appeals appeared in TV commercials by different retail chains?
- Q4: Do the emotional appeals conform with the colours used in advertising by retail chains?

2 LITERATURE OVERVIEW

Colours have a proven effect on the human psyche and are a source of information that can affect moods and feelings, whether negative or positive. Different countries and cultures perceive the meanings of colours differently, so it is vital that international companies recognise their importance. White means purity in many European countries but is the symbol of death in Asia (Pelsmacker et al., 2013). The author Max Lusher (1990) explained the meanings of colours that generally apply to most of the population in his publication. The human eye is able to distinguish between 150-200 different shades. The following table shows the basic colours that can create all these shades (Vysekalová, 2007; AlejTech, 2012). Each colour has a psychological significance, which has the power to induce different emotions and different meanings (Table **1**).

Table 1: The meaning of colours

Colour	Meaning/Emotions
Red	Symbol of love, excitement, energy, heat, power, a sense of danger
Orange	Joy, happiness, openness, a taste for life, an imagination of wealth
Pink	Gentle activity, freedom, works against anger, dampens emotions
Blue	Trust, reliability, satisfaction, comfort, relaxation, reduces appetite
Purple	Impulsivity, sensibility, fascination, spiritual enthusiasm
Green	Symbol of nature, peace, hope, antistress
Yellow	Honesty, development, a wise mind, friendliness
Brown	Wellbeing, warmth of home, stability, solidity, seriousness
Grey	Everydayness, humility, poverty, sadness, neutrality
White	Freedom, a new beginning, innocence, emptiness, simplicity, purity
Black	Symbol of death, unwillingness, defiance, rejection, closeness, elegance, luxury

Source: Clarke and Honeycutt, 2000; Atkinson et al., 2003; Naz and Epps, 2004; Singh, 2006; Bonnardel, 2011; Aslam, 2006; Wordpress, 2013)

Mass media communication can influence the minds of consumers due to the psychological and emotional appeals, for example, warmth, happiness, humour, joy and many others. When creating appropriate advertising, it is essential to know the needs of the target group and to emphasize the exact benefits of advertising, which are of the utmost importance to the consumer and can influence them (Young, 2004). Sensible marketing emotionalism is an important mainstay of companies' communication, as purchasing is impulsive in 80% of cases

(PHD, 2012). Advertising texts, music, symbols, celebrities, and colours are psychological features that can affect the perception of the consumer (Solomon, 2013).

Using colours in marketing should be well thought out. In order to create an appropriate advertising campaign, it is important to understand their meaning and connection with the emotions and feelings they can cause. This is a significant manipulative technique in terms of their influence on the decision-making process (Aaker, 2004). Evidence is also provided by the fact that emotional ads can generate up to twice as much profit as rational targeted ads (MediaGuru, 2014). While rational reasons show the direction to the customer, feelings and emotions will bring them to concrete action. Marketers aim to make a positive offer by using emotional appeals such as warmth, humour, erotic motifs, or fear (Pelsmacker et al., 2013). Today's customer holds deeper values such as family, friends, relationships, and emotions while advertisers who customise are well aware of this. These advertisers are learning how to work with customer's emotions and consequently, are adjusting the content of their ads. There has been little colour research in marketing and the impact of food colour has, unfortunately, been completely neglected outside of the food sciences because marketers understand so little of this powerful but complex issue. Food colours affect flavour perception, which explicitly considers its effect on the consumer in a point of purchase decision (Garber, 2000).

3 METHODS

Eight retail chains were selected for this research. These chains offer general and food goods, and have a significant market share in the Czech Republic. The retail chains that did not meet the characteristics of retail chains, such as online food stores, were removed from the database. Formats such as hypermarkets, supermarkets, discount stores, and cooperative societies were selected for research. The general and food goods that make up a significant share of the Czech market were analysed.

The analysis for research question 1 is based on secondary data provided by the Nielsen Admosphere research agency, which monitors the mass media market in the Czech Republic. The set contains data about TV ads broadcast in 2016 and includes the variables: advertiser, product brand, media group, channel, broadcast time, and advertising theme. The total summary was 428 797 TV ads. The descriptive statistic method was used to answer the first research question.

The analysis for research questions 2, 3, and 4 is based on quantitative data analysis and content analysis, which are combined with descriptive statistics. For content analysis purposes, 80 TV ads were randomly selected. Random selection is a selection method that is implemented in such a way that all units have the same probability of choice, which is not dependent on the judgement of the solver making the choice (Hendl, 2015). The reliability of the research results can be affected by the quality of the video and the subsequently created images whose colour analysis will be conducted in the given program. Lower quality can affect the reliability of the results and cause colour distinguish issues, thus making it more difficult to identify (Giles et al. 2012).

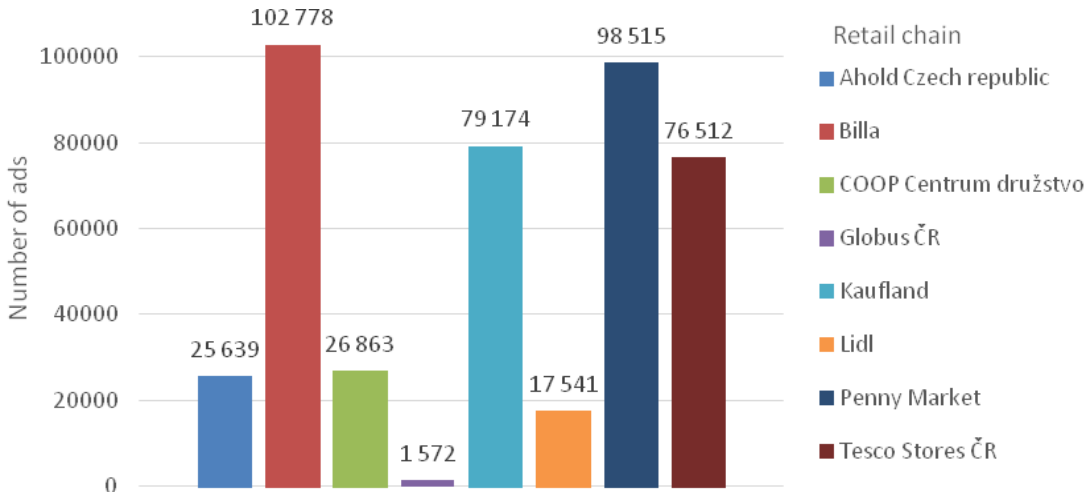
The VLC Media player was used to transform a video to a set of pictures in order to answer the second research question. Colour extraction from ads was processed by using the special Image colour summarizer program, which provides information regarding the percentage of each colour share in the image. The colour representations were detected by this program, which then made it possible to determine the colours that were most often used (Image Color Summarizer, 2017). Explaining the ability to research capability can be limited by examining colours in ads because there is no program to measure colour use directly in the video (Great apps, 2017). Expert estimations and content analysis were used to answer the third research

question. The evaluation of the results may depend on the author's subjective views, not only from the point of view of the colour analysis but also from emotional appeals. An important limiting factor in the analysis and evaluation of individual ad spots is a certain degree of subjectivity. Viewers of ads spots and people, in general, are different and also perceive colour shades and emotions differently.

4 RESULTS

The following Figure **1** was created to answer the first research question concerning the number of broadcasted ads for retail chains in 2016. According to knowledge of the theoretical part, it is easier to influence the viewer's mind by using TV ads. For the research, at least for the comparison of revenues from 2015 and the number of ads by retail chains, this theory is not confirmed. There is a significant mismatch between the highest and the lowest number of ads broadcast. The Billa retail chain has the highest number of TV ads and simultaneously the second-lowest revenues and is almost in the same position as Globus, which had one hundred times fewer TV ads. It can be assumed that the retail chains that attract more consumers are using other forms of advertising, such as outdoor, radio, press, and the internet.

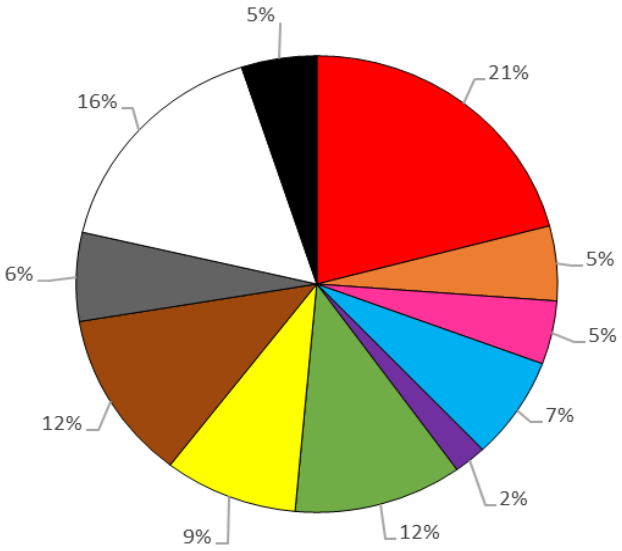
Figure 1: The number of TV ads in the Czech Republic (2016)



Source: own research

An analysis of the colours that are used in commercials by retail chains is used to answer Q2. Colours were analysed separately for each retail chain and then a chart was created to show the final colour distribution within the whole. Each retail chain showed different values for specific colours, which is understandable based on the specific impressions of each retail chain ad. Total colour distribution and the response to Q2 produced Figure **2**. The most common colour is red (21%), followed by white (16%) while the third most common colour is brown and green in the same proportion (12%). Other colour shades are represented in a relatively similar range with the least used colour being violet with 2%. By answering Q2, it is possible to apply the psychological significance of colours and define the emotions and emotional appeals found in the analysed ads. This will allow us to answer Q3 and Q4. The main feelings found in ads and based on colour analysis are excitement, activity, urgency, freedom, peace, credibility, harmony, and warmth of the home.

Figure 2: Total colour distribution



Source: own research

It can be assumed that with the red colour, that the retail chains try to induce the viewer to actively act and they use the dynamics of this colour to attract viewer attention. The audience can experience feelings such as excitement, activity, urgency, or the need to buy a product. Red can also induce appetite, which the main business activity of the retail chains is associated with. In conjunction with white, it can be used to talk about feelings such as freedom of decision and purity. Using white also multiplies the meaning of other colours, which means that it enhances the feelings of excitement and energy at the same time. By using green, this could be used to induce the impulse in consumers to establish contact, which is simultaneously one of the main goals of advertising. The occurrence of brown is associated with pleasure and delight but also a sense of security and stability. Despite the serious aspect of brown, the colour is still used in commercials to a significant extent. There is a definite mismatch between energy ads in terms of red and the content of brown, which evokes seriousness and strength.

Table 2: Number of emotional appeals

Retail chain	**Humour**	**Warmth**	**Fear**	**Erotica**	**Compassion**
Lidl	6	8	7	1	0
Kaufland	2	9	8	0	0
Tesco	5	7	7	0	0
Albert	5	7	6	0	0
Penny Market	3	8	6	0	0
Globus	8	9	1	0	8
Billa	8	5	8	0	0
COOP Jednota	10	4	3	0	0
Sum	**47**	**57**	**45**	**1**	**8**

Source: own research

These research results were compared to real TV commercials, which were randomly selected from a total of 80 ads. Table **2** shows the emotional appeals that appear in the analysed advertisements. The data is presented separately for each retail chain.

There is a relatively intense influence on the viewer's emotions in the advertising spots. As

shown in Table **2**, different types have been found in the analysed ads. There were emotions such as humour, warmth, fear, erotica, and compassion, of which warmth is the most frequently used emotion. In commercials, warmth is found in various forms such as happy families, kids, Czech nature, and products. However, the connection with the meaning of colours with the emotion appeal of warmth is not confirmed. There is a mismatch between the most common appeal and the most commonly used colour. Although warmth is associated with red, the characteristic colours such as orange, pink, and blue, which have the main feature of creating feelings of joy, are used less frequently.

The second emotional appeal is humour. Colour shades associated with humour are yellow, orange, and red. This corresponds to the colours measured in the commercials only to a certain extent. A significant occurrence of brown, considered to be serious and solid, disrupts the characteristic features associated with inducting emotions of amusement and fun.

The appeal of fear has occurred in commercials to alert consumers to a good purchase, discount, or when nearing the end of a discounted offer. Fear is associated with grey or black although colours such as red and yellow are used to attract consumer attention. Such colours are typical for discounts and cheap products. Feelings of compassion are only found in the Globus retail chain whose ads used the most common colours of white and grey. There is a consistency between the emotional appeal and the characteristic properties of the colours. The appeal of eroticism appeared in only one case, which means that the connection with the colour division cannot be discussed.

5 DISCUSSION

The assumption that the retail chains use their company colours in commercials has not been completely confirmed. This relationship has occurred overall in four of the eight examined retail chains. The result showed that the retail chains primarily prefer colour distribution, taking into account the content of the ads and value of the company. The retail chains then focus on the corporate logo, the company colours, and use different colour distribution.

In relation to colour analysis, it must be mentioned that the results could have been affected by the fact that many people suffer from eye damage. This has the effect of limiting the ability to distinguish colours and consequently influences the results. Studies show that at present, every tenth male suffers from colour-blindness and thus the inability to distinguish shades and colours in a regular life. It affects the ability to perceive advertising spots in terms of their colour rendition and thus the emotions associated with them (Mafra, 2014).

CONCLUSION

From the above results, it is confirmed that the retail chains prefer colours in ads that are related to the main idea and content of the ads. These conclusions are confirmed by the most widely used colours and emotional appeals that are regularly found in ads and are inconsistent with their emotional meanings. The results also show that the retail chains evoke different types of emotions with the emphasis on positive emotions.

The conclusions of this research can serve as a stimulus for understanding the strength of colours in terms of emotional effects and underestimating this fact. It could help to plan a marketing campaign more precisely and attract more customers. The main benefit of this research is to provide an overview of the colour relationship with the emotional appeals it invokes in ads. The conclusion can serve as a guide when retail chains are deciding on creating ads in conjunction with the use of colour layouts. At the same time, it can serve as a stimulus for understanding the strength of colours in terms of emotional action and not

underestimating it. Through the combination of colours and the associated emotions, retail chains can ensure more accurate planning of their marketing campaign, as planning is the basis for the implementation of the following managerial functions related to the achievement of the set goals.

Further research in this area can examine the analysis of emotional appeals and emotions caused by colours directly through semi-structured interviews with respondents or through an instrument called Sentimeter, which measures emotions. In the next research, it would also be appropriate to analyse the overall marketing communications of the retail chains, which would explain the substantial differences in advertising activities presented through the TV screen.

ACKNOWLEDGEMENTS

This research was supported by the IGS F6/5/2017 project.

REFERENCES

1. AAKER, David A., 2004. *Brand portfolio strategy: creating relevance, differentiation, energy, leverage, and clarity*. New York: Free Press. ISBN 978-0-7432-4938-6.
2. ALEJTECH, 2012. *Teória farieb vo webdizajne* [online] [2017-04-20]. Available at: https://www.alejtech.sk/sk/Blog-o-webdizajne/Teoria-farieb-vo-webdizajne.html
3. ATKINSON, Rita L, Erik HERMAN, Miroslav PETRŽELA and Dagmar BREJLOVÁ, 2003. *Psychologie*. Praha: Portál. ISBN 978-80-7178-640-5.
4. ASLAM, Mubeen M., 2006. *Are you selling the right colour? A cross-cultural review of colour as a marketing cue. Journal of marketing communications*. 12(1), 15–30.
5. BONNARDEL, Nathalie, Annie PIOLAT and Ludovic LE BIGOT, 2011. *The impact of colour on Website appeal and users' cognitive processes*. Displays [online]. 4., 32(2), 69–80. ISSN 0141-9382. Available at: doi:10.1016/j.displa.2010.12.002.
6. CLARKE, Irvine and Earl D HONEYCUTT, 2000. *Color Usage in International Business-to-Business Print Advertising*. Industrial Marketing Management [online]. 5., 29(3), 255–261. ISSN 00198501. Available at: doi:10.1016/S0019-8501(99)00068-1.
7. ECONOMIA INC. 2016. *Zahraniční řetězce ovládají už dvě třetiny trhu, COOP může zavřít další malé prodejny. Aktuálně.cz - Víte co se právě děje* [online] [2017-04-23]. Available at: https://zpravy.aktualne.cz/finance/nakupovani/zahranicni-retezce-ovladaji-uz-dve-tretiny-trhu-coop-zavre-d/r~a476c254087911e6a2e00025900fea04/
8. Garber Jr, L. L., Hyatt, E. M., and Starr Jr, R. G. (2000). *The effects of food color on perceived flavor*. Journal of Marketing Theory and Practice, 8(4), 59-72.
9. GREAT APPS, 2017. Image Color Summarizer Alternatives - AlternativeTo.net. *AlternativeTo* [online] [2017-02-28]. Available at: http://alternativeto.net/software/image-color-summarizer/
10. GILES, David, Nigel HOLT, Rob LEWIS and Helena ŠOLCOVÁ, 2012. *Psychologie médií*. Vyd. 1. Praha: Grada Publishing. Z pohledu psychologie. ISBN 978-80-247-3921-2.
11. HENDL, Jan, 2015. Přehled statistických metod: analýza a metaanalýza dat. Páté, rozšířené vydání. Praha: Portál. ISBN 978-80-262-0981-2.

12. IMAGE COLOR SUMMARIZER, 2017. *Image Color Summarizer – RGB and HSV Image Statistics* [online] [2017-03-04]. Available at: http://mkweb.bcgsc.ca/color-summarizer/
13. KOTLER, Philip and Kevin Lane KELLER, 2016. *Marketing Management*. 15th global edition. Boston: Pearson. ISBN 978-1-292-09262-1.
14. KREDITECH, 2015. *Obchodní řetězce: Potraviny zdraží*. *www.zaimo.cz* [online] [2017-03-08]. Available at: https://www.zaimo.cz/content/obchodni-retezce-potraviny-zdrazi/
15. LUSCHER, Max, 1990. *Luscher Color Test*. New York: Pocket. ISBN 978-0-671-73145-8.
16. MAFRA, 2014. *Řešení barvosleposti. Vědci přichází s novými brýlemi* | Zdraví. *Lidovky.cz* [online] [2017-03-04]. Available at: http://relax.lidovky.cz/nove-bryle-pomohou-barvoslepym-dn2-/zdravi.aspx?c=A140129_100431_ln-zdravi_ape
17. MEDIAGURU, 2017. *Mediální investice v roce 2016 táhla TV reklama* | MediaGuru [online] [2017-01-26]. Available at: https://www.mediaguru.cz/2017/01/medialni-investice-v-roce-2016-tahla-tv-reklama/
18. MEDIAGURU, 2014. *Emoce v kampani vedou k vyšší ziskovosti* | MediaGuru [online] [2017-02-20]. Available at: https://www.mediaguru.cz/2015/05/emoce-v-kampani-vedou-k-vyssi-ziskovosti/
19. MISTOPRODEJE, 2016. *Obliba hypermarketů mezi českými domácnostmi stále roste*. Mistoprodeje.cz [online] [2017-03-08]. Available at: http://www.mistoprodeje.cz/clanky/vyzkumy-a-jina-cisla/obliba-hypermarketu-mezi-ceskymi-domacnostmi-stale-roste/
20. NAZ, Kaya and Helena EPPS, 2004. *Relationship between color and emotion*: *A study of college students*. *College Student J*. 38(3), 396.
21. NIELSEN ADMOSPHERE INC., 2017. *TZ Televizní reklama dosahovala v roce 2016 rekordních hodnot. Dařilo se i ostatním mediatypům.* Nielsen Admosphere [online] [2017-02-17]. Available at: http://www.nielsen-admosphere.cz/press/tz-televizni-reklama-dosahovala-v-roce-2016-rekordnich-hodnot-darilo-se-i-ostatnim-mediatypum/
22. PELSMACKER, Patrick de, Maggie GEUENS and Joeri van den BERGH, 2013. *Marketing communications: a European perspective*. 5th ed. Harlow: Person Education. ISBN 978-0-273-77322-1.
23. PERNICA, Libor, 2012. *Vývojové trendy retailingu v České republice.* Olomouc. Bachelor thesis. Moravská vysoká škola Olomouc, Ústav managementu a marketing
24. VYSEKALOVÁ, Jitka, 2007. *Psychologie reklamy: nové trendy a poznatky*. 3. ed. Praha: Grada. Expert. ISBN 978-80-247-2196-5.
25. PHD, 2012. *Proč investovat do smyslového marketingu* | MediaGuru [online] [2017-02-18]. Available at: https://www.mediaguru.cz/2012/04/proc-investivovat-do-smysloveho-marketingu/
26. SINGH, Satyendra, 2006. *Impact of color on marketing*. Management Decision [online]. 7., 44(6), 783–789. ISSN 0025-1747. Available at: doi:10.1108/00251740610673332.
27. SOLOMON, Michael R., 2013. *Consumer behavior: why we buy.* [Online]. 2013. Henry Stewart Talks.
28. SPIR, 2016. *Průzkum inzertních výkonů SPIR 2015* [online] [2017-02-13]. Available at: http://www.inzertnivykony.cz/
29. WORDPRESS, 2016. *Symbolika farieb* | Trojveršie.sk [online]. [2017-02-13]. Available at: http://www.trojversie.sk/2012/07/f-ako-%e2%80%9efarby/

30. YOUNG, Charles E., 2004. *Capturing the Flow of Emotion in Television Commercials: A New Approach. Journal of Advertising Research* [online]. 44(2), 202–209. ISSN 1740-1909, 0021-8499. Available at: doi:10.1017/S0021849904040103.

Contact

Bc. Klaudia Žarnayová
University of Economics, Prague, Faculty of Management
Jarošovská 1117/II, Jindřichův Hradec, 377 01. Czech Republic
Email: klaudia.zarnayova@gmail.com
Tel: + 421 915 627 952

Ing. Daria Gunina
University of Economics, Prague, Faculty of Management
Jarošovská 1117/II, Jindřichův Hradec, 377 01. Czech Republic
Email: daria.gunina@vse.cz
Tel: +420 384 417 261

DEVELOPMENT OF ORGANIZATIONAL CULTURE MODELS IN EUROPEAN COMPANIES

Lukáš Mazánek, Michaela Vitulová, Zdenka Konečná, Lukáš Vraniak, Pavel Juřica

Abstract

The aim of this study is to create a search of current scientific literature and also define basic concepts and their differences based on time development. A comprehensive review of scientific literature and articles published mostly in past ten years predominantly in organizational culture oriented journals was carried out. Purpose of the article is to provide an overview of the original ideas and theoretical approaches in the field of organizational culture. The contribution is the identification of the different understanding of cultural differences and its development through past 25 years to obtain holistic view and the ability to perceive organizational culture as an important part of company management in all its contexts. Identified relations provides better understanding of the topic and are subsequently a basis for processing research in the current state of organizational culture.

Keywords: *organizational culture, culture, international companies, culture dimensions*

1 INTRODUCTION

Culture is formed by those who works in the company and how it operates. Each company prefers a certain personality, and requires certain behavior. In the last two decades, organizational culture has become one of the most well-liked topics due to the substantial association among organizational leadership, organisational culture and organizational results, obtaining competitive benefits and constructive organizational efficiency (Hofstede, 1991; Needle, 2004; Certo, 2009; Rosauer, 2013).

In a multicultural organisation, different cultural favourites inevitably lead to a clash. Cultural diversities produce a kind of doubt and disbelief, especially if they are unacknowledged which proves (Jalal, 2017, Gomes, 2012 and also Modaff, 2011). Consequently, communication can be very difficult as team members from different cultures cooperate on subjects whilst their cultural favourites do not correspond (Jalal, 2017). To provide better understanding of the topic the structure of the study should contain three main parts, see figure 1.

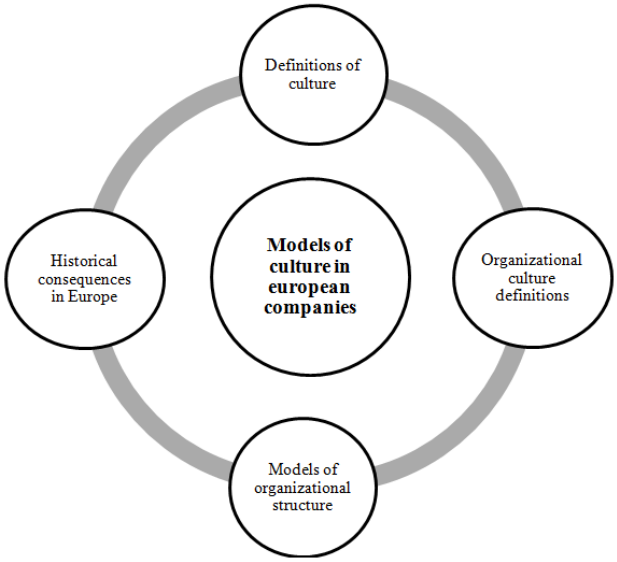


Fig.1: Structure of the paper

2 CULTURE IN GENERAL

Culture is not an independent variable. It is influenced by numerous other factors, for example, geography and climate, politics, the vagaries of history. Culture is also difficult to deal with both politically and emotionally (Harrison, 2000).

Table 1: The development of culture definitions in past 25 years

Author	Definition	Number of citations
Hofstede (1991)	Collective programming of the mind	583
…Kotter and Heskett (1992)	Culture is a complex concept with no consensus as to the exact meaning of the term. However, it is agreed to consist of shared values, belief system and behavioural norms by a group of people	62
Frederick (1995)	Integrated pattern of basic assumptions, values and artefacts that set the stage for action, belief and policy	347
Cooper (2000)	Describes shared corporate values that affect and influence members' attitudes and behaviours.	1057
Leidner and Kayworth (2006)	Shared values" among the members of a collective	1155
Spencer-Oatey (2006)	'Culture is a fuzzy set of basic assumptions and values, orientations to life, beliefs, policies, procedures and behavioural conventions that are shared by a group of people, and that influence (but do not determine) each member's behaviour and his/her interpretations of the 'meaning' of other people's behaviour	167
Matsumoto (2016)	Help people to create sanctions and punishments for norm transgressions.	1357

Source: self-processed. Google scholar citation numbers were taken on 28th March, 2017.

Some scholars have reviewed Hofstede-inspired research in business, management and applied psychology disciplines in order to assess the relevance of Hofstede's framework in a cross-cultural context (Kirkman et al., 2006; Taras et al., 2010).

Professor Geert Hofstede conducted one of the most comprehensive studies of how values in the workplace are influenced by culture. The model of national culture consists of six dimensions: Power Distance, Uncertainty Avoidance, Individualism/Collectivism, Masculinity/Femininity, Long/Short Term Orientation, and Indulgence/Restraint.

It shows the conceptual and research efforts that preceded it and led up to it, and once it had become a paradigm for comparing cultures, research efforts that followed and built on it. The article stresses that dimensions depend on the level of aggregation; it describes the six entirely different dimensions found in the Hofstede et al. (2010) research into organizational cultures. It warns against confusion with value differences at the individual level.

3 ORGANIZATIONAL CULTURE

Organizational culture is one of the major issues in academic research and education, in organizational theory as well as in management practise. There are really good reasons for this. The cultural dimension in all aspect of organizational life. Even in those organizations

where cultural issues receive little explicit attention, how people in company think, feel, value and act is guided by ideas, meanings and also beliefs of cultural nature (Alvesson, 2012).
Whether managers think that culture is too soft or too complicated to bother about or whether there is no unique corporate culture does not reduce the significance of culture.
The central role of organisational culture within the business and management literature (McKinnon et al., 2003) is due to the belief that this social characteristic can be a major determinant of organisational, group and individual behaviour (Hartnell et al., 2011).
There is no single, widely accepted definition that would describe the organizational culture. Although the word "culture" is widely used and often not so easy to define. The most commonly encountered with claims that the basic elements of organizational culture as shared attitudes, norms, values and rituals. According to Schein (2004), based on the value that each organization shares affect largely the behavior of employees.

Table 2: The development of organizational culture definitions in past 30 years

Author	Understanding of organizational culture	Number of citations
Schein (1985)	…deeper level of basic assumptions and beliefs that are shared by members of an organisation, that operate unconsciously	554
Harris (1994)	…encompasses both individual and group-level phenomena. However, to date, the individual-level dynamics of organizational culture have remained relatively neglected	527
Martin (2001)	… metaphor for organizational life	2087
Grey (2005)	…means there is no distance between individuals purposes and those of organization for which they work for	83
Schultz (2006)	… is a set of shared assumptions that guide what happens in organizations by defining appropriate behavior for various situations	969
Awadh (2013)	…is an emergence – an extremely complex incalculable state that results from the combination of a few simple ingredients	46
Najanjo-Valencia (2016)	… the values, beliefs and hidden assumptions that the members of an organization have in common	15

Source: self-processed. Google scholar citation numbers were taken on 28th March, 2017.

Differences between national cultures are deep rooted values of the respective cultures, and these cultural values can shape how people expect companies to be run, and how relationships between leaders and followers should be, resulting in differences between the employer and the employee regarding expectations. (Hofstede, 1991).
Organizational culture can be defined as the values, beliefs and hidden assumptions that the members of an organization have in common (Miron, Erez, & Naveh, 2004). Such shared values form the basis of communication and mutual understanding and affect employee behavior through its two main functions: internal integration and coordination (Naranjo-Valencia, 2016).

4 MODELS OF ORGANIZATIONAL CULTURE

According to Butler (2011) organizational culture is seen as something that characterizes an organization, it can be manipulated and altered depending on leadership and members. Culture as root metaphor sees the organization as its culture, created through communication and symbols, or competing metaphors. Culture is basic, with personal experience producing a variety of perspectives.

Author	Aspects	Definition
Handy (1976)	**Power culture**	Power cultures need only a few rules and little bureaucracy but swift in decisions can ensue.
	Role culture	This culture is often represented by a "Roman Building" having pillars. These pillars represent the functional departments.
	Task culture	Additionally, these cultures often feature the multiple reporting lines seen in a matrix structure.
	Person culture	Formed where all individuals believe themselves superior to the organization
Hofstede (1980)	Dimensions:	**Power distance**
		Uncertainty avoidance
		Individualism vs. collectivism
		Masculinity vs. femininity
Kennedy (1982)	Culture is the way things get done around here	
Johnson (1988)	Symbols Rituals Routines Myths and stories Control system	
Denison (1990)	Sub-dimensions:	Mission
		Adaptability
		Involvement
Chatman (1991)		Consistency

Schein (1992)	Culture is the most difficult organizational attribute to change, outlasting organizational products, services, founders and leadership and all other physical attributes of the organization	
Cameron, Quinn (1999)	**Clan culture**	Leader Type: mentor ValueDrivers: commitment
	Adhokracy culture	Leader Type: visionary Value Drivers: agility
	Market culture	Leader Type: hard driver Value Drivers: profitability
	Hiearchy culture	Leader Type: monitor Value Drivers: timeliness
McGuire (2003)	Culture is system of shared values, beliefs and norms of members of an organization, including valuing creativity and tolerance of creative people, believing that innovating and seizing market opportunities are appropriate behaviors to deal with problems of survival and prosperity	
Qgaard (2005)	Model of competing values	
Armstrong (2007)	The culture of an organization refers to the unique configuration of norms, values, beliefs and behaviors	
Alvesson (2012)	How people in company think, feel, value and act	
Alvesson, Sveningsson (2015)	Key aspekt of organizational competitivness	

Source: self-processed

In order to identify the characteristics of an innovative culture, the model proposed by Cameron and Quinn (1999) was used, the Competing Values Framework (CVF), this model is one of the most influential and extensively used models in the area of organizational culture research (Yu, 2009).

5 CONCLUSSION

In a multicultural organisation, different cultural favourites inevitably lead to a clash. Cultural diversities produce a kind of doubt and disbelief, especially if they are unacknowledged which proves (Jalal, 2017, Gomes, 2012 and also Modaff, 2011). As many authors said before, organizational culture is one of the major issues in academic research and education, in organizational theory as well as in management practise. There is no definition that would describe the organizational culture. Although the word "culture" is widely used and often not so easy to define. The most commonly encountered with claims that the basic elements of organizational culture as shared attitudes, norms, values and rituals (Schein, 2004).

We are going to explore the perception of organizational culture among international companies in Czech Republic to identify the current state of organizational aspects in relation to culture and to be able to suggest adequate improvements.

Next up the model of organizational culture will be designed through in depth interviews with team members working in international teams and then quantitatively validated. We presume that this model of organizational culture will be useful for a lot of international personnel activities in a company. Whether it could support recruitment decisions, evaluation of team members or indicate the appropriate field of organizational development.

Acknowledgement
This paper was supported by Project "No. FP-J-17-4284 Identification of leadership competencies which support their successful work in the international environment" and "No. FP-J-17-4154 Innovations in Performance Management of SME".

Sources

1. ADLER, N. J., 1983. *A typology of management studies involving culture*. Journal of International Business Studies , Vol. 14 No. 2, pp. 29-47.
2. APTE, M., 1994. *Language in sociocultural context*. In: R. E. Asher (Ed.), The Encyclopedia of Language and Linguistics. Vol. 4 (pp. 2000-2010). Oxford: Pergamon Press.
3. ARMSTRONG, M. *Personální management*. Praha: Grada Publishing, 1999, 963 s. ISBN 80-7169-614-5.
4. AWADH A. M., MOHAMMED S. A.., 2013. *Impact of organizational culture on employee performance*. International Review of Management and Business Research. Vol. 2, Issue 1. ISSN 2307-5953.
5. BALOGH, A., ZOLTÁN G., LAJOS S., 2011. *Relationship between organizational culture and cultural intelligence*. Management [online]. 6(1), 95-110 [cit. 2016-12-01]. ISSN 18420206.
6. BEYER, D. L., HAUG, R. (nd)., 2014. Organizational Culture: *Diagnosing a Customer Contact Company*.
7. BJÖRKMAN, I. a WELCH D., 2015. *Framing the field of international human resource management research*. International Journal of Human Resource Management [online]., 26(2), 136-150 [cit. 2016-12-01]. DOI: 10.1080/09585192.2014.922361. ISSN 09585192.
8. BORGULYA, I., BARAKONYI, K. 2004, Vállalati kultúra, Nemzeti Tankönyvkiadó, Budapest Bratianu, C., Vasilache, S., Jianu, I. *In Search of Intelligent Organizations*, Management & Marketing, 1(4), pp. 71-82.
9. BRISCOE, R. D., SCHULER, S., CLAUS, L., 2009. *International human resource management: policy and practice for multinational enterprises*. Abingdon: Routledge.
10. CAMERON, K. S., QUINN, R. E., 2006. Diagnosing and changing organizational culture: *Based on the competing values framework* (Rev. ed.). San Francisco, CA: Jossey-Bass. Daft, R.
11. COOPER Ph. D, M. D., 2000. *Towards a model of safety culture: Safety science*. ISSN 111-136.
12. CUMPĂNAȘU, V., 2016. *Issues concerning the definition of organizational culture*. Annals of the Constantin Brancusi University of Targu Jiu-Letters [online], 80-85 [cit. 2017-03-22]. ISSN 18446051.
13. ČIHOVSKÁ, V., HANULÁKOVÁ, E., LIPIANSKA, J., 2001. *Corporate image - culture, identity, design, communication*. ISBN 80-88984-24-6.
14. DORDEVIĆ, B., 2016. *Impact of national culture on international human resource management. Economic Themes* [online]., 54(2). [cit. 2016-12-01]. ISSN 03538648.
15. EARLEY, P. C., ANG. S., 2003. Cultural Intelligence: *Individual Interactions Across Cultures*, Stanford University Press, Stanford.
16. FERRARO, G., 1998. *The Cultural Dimension of International Business*. 3rd Edition. New Jersey: Prentice Hall.
17. FREDERICK, W. C., 1995. *Values, Nature and Culture in the American Corporation*, Oxford University Press, Oxford.

18. GOMES, Sh., 2012. *International Human Resource Management*, Retrieved from: http://xisspm.files.wordpress.com/2012/02/chap-2-concept-of-ihrm.pdf., Accessed 6. July 2015.
19. GRAY, J. H., DENSTEN, I. L., 2005. *Towards an integrative model of organizational culture and knowledge management*. International Journal of Organisational Behaviour, 9(2). ISSN 594-603.
20. HARRIS, L. C., OGBONNA, E., 2002, *The unintended consequences of culture interventions: a study of unexpected outcomes*. British Journal of Management, Vol. 13 No. 1, pp. 31-49.
21. HARRIS, S. G., 1994. Organizational culture and individual sensemaking: *A schema-based perspective*. Organization Science, 5(3). ISSN 309-321.
22. HARRISON, L. E., SAMEL P. H., 2000. Culture matters: *How values shape human progress*. Basic books.
23. HARTNELL, C., KINICKI, A., 2011. *Organizational culture and organizational effectiveness: a meta-analytic investigation of the competing values framework's theoretical suppositions*. Journal of Applied Psychology, Vol. 96 No. 4, pp. 677-694.
24. HOFSTEDE, G., 1980. *Culture's Consequences: International Differences in Work-related Values*, Sage, Newbury Park, CA.
25. HOFSTEDE, G., 1991. *Culture and Organizations: Software of the Mind*, McGraw-Hill, London.
26. HOFSTEDE, G., 2010. *Cultures and Organizations: Software of the Mind – Intercultural Cooperation and its Importance for Survival*, 3rd ed., McGraw-Hill, New York, NY.
27. KOTTER, P. J., HESKETT, J. L., 1992. *Organizational Culture and Performance*, Free Press, New York, NY.
28. LEIDNER, D. E., KAYWOTH, T., 2006. *Review: a review of culture in information systems research: toward a theory of information technology culture conflict*. MIS Quarterly, Vol. 30 No. 2, pp. 357-399.
29. MATSUMOTO, D., 1996. *Culture and Psychology*. Pacific Grove, CA: Brooks/Cole
30. MATSUMOTO, D., HWANG, H. C., FRANK, M. G., 2016. *APA handbook of nonverbal communication*. (pp. 77-101). Washington, DC, US: American Psychological Association, xxiv, 626 pp.
31. MCKINNON, J. L., HARRISON, G. L.,CHOW, C. W., WU, A., 2003. *Organizational culture: association with commitment, job satisfaction, propensity to remain, and information sharing in Taiwan*. International Journal of Business Studies, Vol. 11 No. 1, pp. 25-44.
32. MODAFF, D. P., DEWINE, S., BUTLER, J., 2011. *Organizational communication: Foundations, challenges, and misunderstandings* (2nd Ed.). Boston: Pearson Education.
33. NARANJO-VALENCIA, J. C., JIMÉNEZ, D., SANZ-VALLE, R., 2016. *Studying the links between organizational culture, innovation, and performance in Spanish companies*. Revista Latinoamericana de Psicología 48.1. 30-41.
34. OUCHI, W. C., THEORY Z., 1981. *How American Business Can Meet the Japanese Challenge*. Reading, MA: Addison-Wesley.
35. PETERS, T. J., 1980- *Management Systems: The Language of Organizational Character and Competence. Organizational Dynamics*.
36. RALSTON, D. A., GUSTAFSON, D. J., CHENG, F., TERPRSTA, R. H., 1993. *Differences in managerial values: a study of US, Hong Kong and PRC managers*. Journal of International Business Studies, Vol. 24 No. 2, pp. 249-275.

37. RAVASI, D., SCHULTZ, M., 2006. Responding to organizational identity threats: *Exploring the role of organizational culture*. Academy of management journal, 49(3). ISSN 433-458.
38. RODRIGUES, J. K., MEARNS, L., 2012. *Problematising the interplay between employment relations, migration and mobility*. Employee Relations, 34, ISSN 580–593.
39. SCULLION, H., 2005. *International HRM: an introduction*. In: Scullion, H. & Lineham, M. (Eds.), International Human Resource Management. A critical text (pp. 3-10). London/NY: Palgrave Macmillan.
40. SCHEIN E. H., 1985. *Organizational Culture and Leadership*.
41. SCHEIN, E. H., *Organizational culture and leadership*. ISBN 0-7879-7597-4. 1992.
42. SMITH, P. B., BOND, M. H., 1998). *Social Psychology across Cultures*. London: Prentice Hall Europe.
43. STANLEY H., *Department of Management*, College of Business, Auburn University, Auburn, Alabama. ISSN 36849-5401.
44. STEFAN T. ,2013. *Moving cultural information systems research toward maturity: A review of definitions of the culture construct*. Information Technology & People, Vol. 26 Iss: 4, pp. 383 – 400.
45. SUPPIAH V., SANDHU M. S., 2011. *Organizational Culture's Influence on Tacit KnowledgeSharing Behavior,* Journal of Knowledge Management, 15(3), ISSN 462-477.
46. TROMPENAARS, F., 2006. *Resolving international conflict: culture and business strategy*, Business Strategy Review, Vol. 7 No. 3, pp. 51-68.
47. TROMPENAARS, F. HAMPDEN-TURNER, C., 1997. *Riding the Waves of Culture. Understanding Cultural Diversity in Business*. 2nd ed. London: Nicholas Brealey.
48. TUBADJI, A., MOELLER, J., NIJKAMP , p., 2014. *Introduction to cultural research.*
49. TYLER C., 2000. *In Praise of Commercial Culture*, Cambridge/London, Harvard University Press, p. 5.
50. WALLACH, E., 1983. In*dividuals and organization: The cultural match*. Training and Development Journal, 37(2).
51. YU, T., 2009. *A review of study on the competing values frameworK.* International Journal of Business Management, 4 (7). pp. 37–42.

Contact

Ing. Lukáš Mazánek
Vysoké učení technické v Brně
Fakulta podnikatelská
Kolejní 4, Brno 612 00
Email: mazanek@fbm.vutbr.cz

REFERENCES OF SLOVAK CONSUMERS ON EATING EDIBLE INSECTS - PRELIMINARY STUDY

Malgorzata A. Jarossová

Abstract

The aim of the article was to analyse the preferences of Slovak consumers regarding the consumption of edible insects. The research has preliminary character. Chi2 test was used for statistical analysis. The survey was attended by 133 respondents, including 53.4% of women and 46.6% of men. Respondents who participated in the survey were between the ages of 18 and over 61. On the basis of the conducted research one third of respondents said that they would consume edible insect. The number of such respondents increased by 25.6% when they were further informed about the nutritional properties of edible insects and their positive effects on human health. Most of the respondents who declare their willingness to consume edible insects, would consume it, but only when they would be in processed form (e.g. powder) added to other foods.

Key words: *edible insects, food, consumer preferences, Slovak consumers*

1 INTRODUCTION

The current food trend begins to perceive insects as a food supplement. Insects are a very good source of protein. At present, there are about 7.5 billion people on our planet, and by 2050 the world's population should reach 9.7 billion. It arouses concern that, what to feed people if their number on the planet will continue to rise. Therefore the European Union has decided to invest in insect research and raise people's awareness of its consumption.

At present, insects are rarely used by the European food industry, but they are a subject of increasing interest as an alternative source of raw materials. The risks associated with the use of insects in the production of foods and food ingredients have not been sufficiently investigated (Schlűter, 2016).

Consumption of insects (entomophagy) is common in countries like Mexico, Thailand, or Paraguay. There are 3000 species of edible insects in Mexico. Roasted tarantula is a goody in Thailand. In North America and Europe, insects are considered mainly to be feed for birds and rodents or as pests and basically for everything except food for humans (Borkovcová 2009). Insects are considered to be food of the 3rd millennium, as food for the future, because they are rich in amino acids, beneficial fats, fiber, proteins, iron, minerals, provitamin A, vitamins B and chitin. Edible insects have a positive effect on human health, but not all insects are suitable and beneficial to humans. Some insect species are poisonous because they feed on poisonous plants. Most nutrients are found in young insects that are in the developmental stage, while adult insects have the least nutrients (Vikorová, 2008).

Pic 1: An example of edible insects sold at markets



Source: ONZ

How insect flavours are influenced especially by specific pheromones. It can be consumed salty (instead of meat, as main dish, pancakes) or sweet (lilies, like candies, that is, paste in caramel). Based on testing, it was found that one should eat 200g of insect daily, which represents a sufficient amount of nutrition for a day. In order to achieve a change in the blood, we should consume insects for at least 3 weeks. Then it is best to place the insects in the dinner at least once every two weeks (Vikorová 2008).

In some countries, as already mentioned, for example in Switzerland since August 21 this year, consumers can buy burgers made from insects (Pic. 2). The laws were changed in May in this year in Switzerland and allow for the sale of food items containing three types of insects: grasshoppers, crickets and mealworms, which are the larval form of the mealworm beetle. Import of insects into Switzerland is under strict conditions and the insects must be raised in accordance with Swiss requirements at a firm submitted to inspections by national food safety authorities (Insect burgers go on sale in Swiss supermarkets 2017). The burgers are made by Swiss company Essento and are made from mealworms, but also contain rice, vegetables such as turnip, celery and leeks, as well as they contain oregano and chilli.

Pic 2: Insect balls and insect burgers sold in one of the Swiss COOP supermarket chain



Source:http://www.geekweek.pl/,http://www.telegraph.co.uk/news/2017/08/15/insect-burgers-go-sale-swiss-supermarkets/

Methods of preparing and selling insects are different, i.e., canned sold in supermarkets, fresh or dried directly on local markets (Ramos-Elorduy 1997). Availability of insects depends on the origin of the insects: mass farming, breeding or gathering by villagers in natural areas (Megido et. al. 2014). Insects are extremely efficient at converting organic matter in animal protein. Because of this, insects have a great potential as food for humans, but also for feed production and are environmentally friendly (Halloran et. al. 2016).

Food specialists from the United Nations Food and Agriculture Organization (FAO) have also reviewed alternative types of meals such as: insects, soya or synthetic meat. It turns out that the most ideal for the environment and man are products made from insects. Their breeding is

very simple; they quickly replicate and are a great source of fast-absorbing protein for humans (Megido, et. al. 2014, Oonincx et al. 2010).

Important areas where further research would be desirable influence on entomophagy on allergies, possible zoonotic diseases at the human-insects interface and proper rearing and processing procedures to ensure food safety (Belluco et. al. 2017).

The aim of the article is to analyse Slovak consumers' preferences regarding insect consumption.

1.1 Methodology of the study

Respondents' profile

The survey was attended by 133 respondents, consisting of 53.4% of women and 46.6% of men. Majority of respondents were aged 18 to 30 (49.6%). Respondents aged between 51 and 60 and over 61 were (12% each). 41.4% of respondents had a bachelor's degree. Master's degree had as many people as secondary education (29.3% each). Respondents came from the following regions: Prešovský kraj (45.1%), Bratislavský kraj (42.1%), Košický kraj (9.8%) a Nitriansky kraj (1.5%).

Characteristic of research

Primary data were obtained using the online questionnaire. In this work, we will analyze respondents' answers on three questions concerning the preference of respondents regarding:

1) consumption of edible insects or edible insect products,
2) eating insects or insect products when respondents were informed on their nutritional properties and their beneficial effects on human health,
3) appearance of edible insects in their original or processed form (e.g. cakes, rods, etc.) that they would like to consume.

The Ch2 test was used to investigate which selected socio-demographic factors (gender, age, and education) could cause statistically significant differences in responses.

1.2 Results and discussion

In our article we focused on eating edible insects, as they are considered to be food of the future, and therefore we asked the respondents as follows: "Future trends in the food industry will be edible insects or meals containing ingredients derived from edible insects. Would you consume edible insects or products made from them?"

More than half of respondents (64.7%) answered negatively on this question and only 35.3% of consumers answered positively. In this case, the gender did not affect respondents' answers. A very similar number of women and men (one third of respondents) replied that they would consume edible insects (Table 1). The largest group of respondents willing to consume edible insects were respondents with secondary education (46.2%) and those aged between 18 and 30 and over 51 years of age. The responses to this question were statistically significantly depending on the age of the respondents.

Tab. 1: Preferences of Slovak consumers regarding insect consumption

Characteristic of respondents (N=133)	**Yes**		**No**		**Total**		**Statistical significance**
	N	**(%)**	**N**	**(%)**	**N**	**(%)**	
Gender							
Women	25	35.2	46	64.8	71	53.4	NS

Men	22	35.5	40	64.5	62	46.6	
Aged							
18-30	21	31.8	45	68.2	66	49.6	Ch^2=7.761
31-50	8	23.5	26	76.5	34	25.6	df=2
51>	18	54.5	15	45.5	33	24,8	**p=0.021**
Education							
Secondary education	18	46.2	21	53.8	39	29.3	NS
Bachelor's degree studies	15	27.3	40	72.7	55	41.4	
Master's degree studies	14	35.9	25	61.1	39	29.3	

Source: Based on own research

On the next question, we wanted to know whether respondents being informed that edible insects are the source of nutrients and therefore have a beneficial effect on human health, may affect their preference, especially by those respondents who responded to the previous question that they don't want to consume edible insect and the products made from them. In this question, more respondents (60.9%) replied that they would consume the edible insects. The most of these people were between 31 and 50 years of age (Table 2). The highest positive response rate (47.6%) was recorded in this group.

Tab. 2: Consumers' preferences for eating edible insect when consumers were informed of their nutritional properties and beneficial effects on human health

Characteristic of respondents (N=133)	**Yes**		**No**		**Total**		**Statistical significance**
	N	**(%)**	**N**	**(%)**	**N**	**(%)**	
Gender							
Women	43	60.6	28	39.4	71	53.4	NS
Men	38	61.3	24	38.7	62	46.6	
Age							
18-30	35	53.0	31	47.0	66	49.6	NS
31-50	23	67.6	11	32.4	34	25.6	
51>	23	69.7	10	30.3	33	24.8	
Education							
Secondary education	27	69.2	12	30.8	39	29.3	NS
Bachelor's degree studies	29	52.7	26	47.3	55	41.4	
Master degree studies	25	64.1	14	35.9	39	29.3	

Source: Based on own research

Health effects of edible insects as foods rich in nutrients would cause that nearly one-half of respondents (39.1%) change their preference. Additionally, the respondents were asked the following question: "If the edible insects will be one of the foods as shown in picture 3 (a cookie, biscuits, sticks, or insect in its original form), would you have consumed such products?"

Pic 3: Edible insect as a one of the food ingredients



Source: Zdroj: http://style.hnonline.sk/gastro/446020-europska-unia-chce-aby-sme-jedli-hmyz-vraj-je-superzdravy-foto

Majority of respondents (64, 48.1%) said they would not have a problem with eating insects, but only if they were in processed form e.g. powder added to the food product (Table 3).

Tab.3: The preferences of Slovak consumers regarding the consumption of insects due to their appearance (being in original or processed form as food)

Characteristic of respondents (N=133)	**Yes***		**Yes****		**No**		**Total**		**Statistical significance**
	N	**(%)**	**N**	**(%)**	**N**	**(%)**	**N**	**(%)**	
Gender									
Women	28	39.4	32	45.1	11	15.5	71	53.4	NS
Men	17	27.4	32	51.6	13	21.0	62	46.6	
Age									
18-30	30	45.5	29	43.9	7	10.6	66	49.6	Ch^2=10.815
31-50	8	23.5	19	55.9	7	20.6	34	25.6	df=4
51>	7	21.2	16	48.5	10	30.3	33	24.8	**p=0.029**
Education									
Secondary education	11	28.2	21	53.0	7	17.9	39	29.3	NS
Bachelor's degree studies	22	40.0	26	47.3	7	12.7	55	41.4	
Master degree studies	12	30.8	17	43.6	10	25.6	39	29.3	

Source: Based on own research, *it is without signification in what form will they be, **but only if the insect will be in processed form for example e.g. powder

The second most frequent responders' answer was that they would not consume edible insects (both in the original and processed form) - 33.8% of respondents. 18% of respondents said they would consume edible insects no matter whether they were sold in the original, either in processed form.

2 DISCUSSION

It is not enough to dip an edible insect in chocolate and wrap it in a coloured paper to change the mentality of consumers in Europe. The crux of the matter lies in the fact that people

consider insects as an eyesore. What's different, when the insects are processed, they cannot be seen on the plate. Insects have less cholesterol, fat, and a lot of protein. Larva of some butterflies and beetles contain three times more protein than beef. In addition, they contain large amounts of valuable nutrients - calcium, iron (especially high values in termites), zinc and vitamin B. The larvae best taste fried or roasted in a pan and drained with salt.

In one research conducted in the Netherlands, one out of five consumers who consume meat declared that it would not be a problem to consume edible insects. With regard to the sex of respondents, men more often than women declare their desire to consume insects (Verbeke, 2015), as our research also confirms (although the differences in our case are smaller). In another study conducted in Belgium in 2013 among 189 respondents, 78% of them (regardless of gender and age) responded that they were accepting edible insects as part of their meal. It should be mentioned, however, that Belgian respondents were interested in the consumption of edible insects (Caparros et al. 2013).

In our research, important question was related to appearance of edible insect as a food product (original appearance or occurring in a processed form such as e.g. powder, which is a ingredient of same products). The second answer (processed form) was given mainly by persons aged between 31 and 50. The form in which the insect would be consumed was irrelevant for young respondents aged 18 to 30. According to (Balzan et al. 2015) appearance of insects seemed to be an essential factor in deciding whether or not to eat them.

Legislative restrictions are the biggest barrier to the development of this industry. These limitations are due to the fact that the insects were not considered as a source of food in the EU during the development of the current legislation (HeinimaaTrunk 2014). The main news in the realm of edible insects in the EU is the approval of a new Novel Food regulation at the end of 2015 (Reg. (EC) 2283/2015) which will be applied from January 2018. This regulation aims to streamline the authorisation procedure and to introduce a faster, more proportionate safety assessment for traditional foods from outside the EU with a centralized risk assessment procedure led by EFSA (Belluco et al. 2017).

3 CONCLUSION

The aim of the article was to analyse consumer preferences regarding insect consumption. We asked respondents if they prefer to consume edible insect in its original form or in the processed form e.g. powder which would be part of food products (e.g. biscuits, sticks), because forecasts of food availability for humanity in the future are not very favourable. We found that most respondents would not have a problem with eating edible insects unless they were processed. However, some of respondents would not have a problem with its consumption in its original form. We also conclude that the appearance of insects is the most important factor for consumers which determine their eating. Edible insects contain many nutrients and therefore their consumption can help us improve our health. Information on positive impact of insects on human health contributed to the significant amount of respondents who would consume them, what could be used in the marketing campaigns in this field.

References

1. BALZAN, S. et al., 2015. Edible insects and young adults in a north-east Italian city an exploratory study. British Food Journal, Vol. 118(2). 318 -326. ISSN: 0007-070X.
2. BELLUCO, S. et al., 2017. New protein sources and food legislation: the case of edible insects and EU law. Food Security 9, (4), 803-814. ISSN: 1876-4517.

3. BORKOVCOVÁ, M, 2009. *Hmyz čaká bohatá budúcnosť nielen v kulinárstve*. [online]. [Accessed: 10.09.2017]. Available at: <https://www.aktuality.sk/clanok/435554/marie-borkovcova-hmyz-caka-bohata-buducnost-nielen-v-kulinarstve/>
4. CAPARROS MEGIDO, R., et al., 2013. Edible insects acceptance by Belgian Consumers: Promising Attitude for Entomophagy Development. *Journal of Sensory Studies*, 29 (1), 14-20. ISSN: 1745-459X.
5. HEINIMAA, S., AND W. TRUNK, 2014. Legislation and regulation of insects as food and feed - the EU perspective. Insects to Feed the World conference. May 2014. Wageningen. pages not determined.
6. HALLORAN, A. et al., 2016. Life cycle assessment of edible insects for food protein: a review. *Agronomy for Sustainable Development*. 36 (57), 1-13. ISSN: 1774-0746
7. MEGIDO, R. C. et al., 2014. Edible insects acceptance by Belgian consumers: promising attitude for entomophagy development. *Journal of Sensory Studies.* 29, 14–20. ISSN: 1745-459X.
8. OONINCX, D.G.A.B. et al., 2010. An exploration on greenhouse gas and ammonia production by insect species suitable for animal or human consumption. *Plos ONE* 5(12), e14445.
9. RAMOS-ELORDUY, J, 1997. Insects: A sustainable source of food? *Ecology of Food and Nutrition*. 36(2–4), 247–276. ISSN: 0367-0244.
10. SCHLŰTER, O. et al., 2016. Safety aspects of the production of foods and food ingredients from insects. *Molecular Nutrition & Food Research*, 61(6), 1–14. ISSN 1613-4133.
11. VIKOROVÁ, L, 2008. *Hmyz ako doplnok stravy*. [online]. [Accessed: 10.09.2017]. Available at: http://www.pluska.sk/izdravie/zivotny-styl/zivotny-styl/hmyz-ako-doplnok-stravy.html
12. VERBEKE, W., 2015. Profiling consumers who are ready to adopt insects as a meat substitute in a western society. *Food Quality and Preference*, 39(0), 147–155. ISSN: 0950-3293.

Contact

Dr. Ing. Malgorzata A. Jarossová
University of Economics in Bratislava
Dolnozemska cesta 1, 852-35 Bratislava
Tel: +421 267291398
email: malgorzata.jarossova@euba.sk

VPLYV MARKETINGOVEJ KOMUNIKÁCIE A MODERNÝCH MÉDIÍ NA SPOTREBITEĽSKÉ SPRÁVANIE GENERÁCIE Y

THE IMPACT OF MARKETING COMMUNICATION AND MODERN MEDIA TO THE CONSUMER BEHAVIOR OF GENERATION Y

Petra Grešková

Abstrakt

Marketing zameraný na generácie predpokladá, že spotrebitelia jednej generácie majú podobné znaky, nákupné správanie, ovplyvňujú ich podobné médiá, marketingová komunikácia a rovnako sa rozhodujú aj v živote. Každá z generácií má svoje špecifiká a prináša množstvo zmien. Väčšina z tých, ktoré nastávajú v generácii Y, vzniká v súvislosti s nástupom nových informačných a komunikačných technológií, vývoj ktorých sa za posledné obdobie zrýchlil. Súčasné inovatívne formy marketingovej komunikácie a prostriedkov na komunikáciu do veľkej miery ovplyvňujú správanie a požiadavky spotrebiteľov všetkých vekových kohort. Vplyv komunikačných technológií na pozadí s ostatnými faktormi, sa však odráža aj do ostatných sfér života. Pozitíva sa stretávajú s negatívnymi vplyvmi v podobe rýchleho životného štýlu, tvorby virtuálnych vzťahov a väčšej medziľudskej anonymity.

Kľúčové slova: *generácia Y, marketingová komunikácia, médiá, spotrebiteľské správanie.*

Abstrakt

Marketing focused on the generations assumes, that consumers which are members of the same generation group have similar characteristics, buying behavior, marketing communications, as well as their decisions in life. Each of generation group has its own specifics and brings many changes. Most of those that occur in generation Y, arises in connection with the emergence of new information and communication technologies. Present innovative forms of marketing communication has influence to behavior and requirements of customers of all age cohorts. The impact of technologies, on the background, of other factors, is also reflected in other areas of life. Positives are faced with negative effects through fast lifestyle, making virtual relationships and greater interpersonal anonymity.

Key words: *generation Y, marketing communication, media, consumer behavior.*

1 SPOTREBITEĽ A SEGMENTÁCIA TRHU

Generácie sú zaujímavým objektom marketingových aktivít. Všeobecne je pod týmto pojmom označená skupina osôb, ktoré sa narodili v pomerne rovnakom časovom období, či rokoch alebo skupina osôb, ktoré majú podobné správanie, či záujmy, vyplývajúce práve z obdobia, v ktorom sa narodili. Vybranou generáciou, ktorá bude v príspevku analyzovaná, je generácia Y. Predpokladá sa, že práve generácia Y je poznačená veľkou mierou individualizmu, potreby odlíšiť sa a dosiahnuť vlastný úspech. Nie náhodou sa v súvislosti s touto generáciou spája pojem pragmatizmus a nadhľad nad životom. Generácia Y predstavuje nielen pre marketingových pracovníkov, ale aj pre bežné oblasti života, t.j. školstvo, gastronómiu, šport a trávenie voľného času, kultúrny a spoločenský život veľkú výzvu. Tým, že je poznačená nástupom nových informačných a komunikačných technológií, ktoré výraznou mierou uľahčili dorozumievanie sa, vyhľadávanie informácií, ale aj nakupovanie a používajú ich denne, sa zmenil spôsob vzájomnej komunikácie, vytvoril sa akýsi „vlastný jazyk“ tejto

generácie, ktorý sa pretavil aj do marketingovej komunikácie firiem, či značiek. Práve tie už pochopili, že mladí ľudia sú skutočne náročnými príjemcami marketingových posolstiev.

Predtým, než bude objasnený pojem generácia, je dôležité zamerať sa na samotného spotrebiteľa, ktorý je kľúčovým pojmom v tvorbe nasledujúcich generačných charakteristík.

1.1 Spotrebiteľ a zákazník

Spotrebiteľom zaoberá viacero domácich a zahraničných autorov. Z aktuálne významnejších poukážeme na Lošťákovú, 2009; Koudelku, 2006; Kotlera, 2007; Kulčákovú, Schiffmana a Kanuka, 2010 a i. Ďalší autori sa zaoberajú konkrétnymi oblasťami spotrebiteľského správania, napr. správanie spotrebiteľa pri kúpe potravín analyzuje Hes, 2008, segment žien spotrebiteliek zase popisujú autorky Kusá a Hrabačková, 2012. Vysekalová, 2011 a Hradiská a Šulek, 1999, sa spotrebiteľom a jeho správaním zaoberajú z psychologického hľadiska.

Z nami vybraných autorov najlepšie spotrebiteľa vystihuje Dzurová, ktorá ho charakterizuje ako: „*ekonomického aktéra, ktorý nakupuje tovary a služby na účel spotreby. V trhovej ekonomike plní niekoľko podstatných úloh, ktorými uspokojuje svoje potreby.*“ (Dzurová, 2011, s. 33) Oproti tomu zákazník zahrňuje buď jednotlivca alebo firmu (organizáciu), ktorá nakupuje produkty pre vlastnú potrebu, prípadne na ďalší predaj alebo spracovanie. (Lošťáková, 2009, s.10) Rozdiel medzi týmito subjektmi teda vzniká v tom, že zákazník nemusí byť vždy priamym spotrebiteľom ani používateľom produktu.

1.2 Segmentácia trhu

Segmentácia predstavuje nevyhnutný proces firmy k lepšiemu poznaniu trhu a zvýšeniu konkurencieschopnosti. Aj napriek tomu, že neexistujú dvaja totožne sa správajúci jedinci, existuje rada faktorov, v ktorých si budú pri nákupe do istej miery podobní. Svojou relatívnou podobnosťou ich potom dokážeme zlúčiť do väčšej skupiny, v ktorej môžeme uplatniť rovnaký alebo podobný typ marketingových procesov. Spočíva vo vhodnom rozdelení trhu na homogénne trhové segmenty, ktoré sa stanú pre firmu cieľovým trhom so špecifickým marketingovým mixom.

Segment by mal spĺňať určité kritériá, a to je merateľnosť kúpyschopnosti a početnosti segmentu, dostupnosť pre marketingové procesy, opodstatnenosť pre realizovanie marketingových aktivít, akcieschopnosť a spätná väzba spotrebiteľov v segmente. (Foret, Procházka, Urbánek, 2005, s.82) Segment je väčšou časťou celku, ktorá je na trhu ľahko identifikovateľná. Jej podskupinu, ktorá tvorí len parciálnu časť segmentu, nazývame mikrosegment. Je zložený z výklenkových častí trhu a z hľadiska marketingových procesov je v nich možná relatívne väčšia úspešnosť oslovenia spotrebiteľa vďaka nižšej konkurencii.

1.3 Kritériá segmentácie trhu

Segmentovať trh možno na základe rozličných kritérií. Každý subjekt na trhu si zvolí ten spôsob a formu, ktorá vystihuje jeho podstatu a najlepším spôsobom vyberie správnych zákazníkov. Väčšina autorov marketingovej literatúry, Kotler, 2007; Foret, 2006; Matúš, Čábyová, Ďurková, 2008 a i., sa zhoduje v štyroch kritériách segmentácie trhu. Sú nimi:

- Geografické - rozdelenie trhu podľa územných celkov, napr. miest, obcí, krajov,...
- Demografické - rozdelenie podľa pohlavia, veku, príjmu, vzdelania,...
- Behaviorálne - rozdelenie podľa spôsobu správania spotrebiteľa voči značke, firme, produktu. Do úvahy sa berie lojálnosť, miesto a spôsob nákupu,...
- Psychografické - rozdelenie podľa sociálnych skupín, životného štýlu, hodnôt, postojov, motivácie, osobnosti,...

1.4 Segmentácia trhu na základe generačného prístupu

Jednou z foriem segmentovania spotrebiteľov a vytvárania ich typológií, je na základe generácií. Zo sociologického hľadiska predstavuje generácia veľkú spoločenskú skupinu, ktorá bola ovplyvnená súhrnom spoločenských udalostí a zmien. Z demografického hľadiska je generácia vnímaná ako vekové rozmedzie potrebné k reprodukcii ľudského rodu a označuje súbor ľudí narodených v rovnakých rokoch. Najčastejšie sa uvádza ako generácia prarodičov, rodičov, detí. „*Za generačnú charakteristiku môžeme považovať sociálny znak - hodnoty, životný štýl, estetickú normu, postoje a pod. To znamená najfrekventovanejšie, reálne existujúce znaky spojené s jednaním a s vedomým generácie*." (Kolesárová, Sak, 2012, s. 37)

Autori Kotler a Keller (2007, s.291) členia generácie nasledovne:

- GI generácia – narodená v rokoch 1901-1924
- Tichá generácia – narodená v rokoch 1925-1945
- Baby boomers – narodená v rokoch 1946-1965
- Generácia X– narodená v rokoch 1965-1977
- Generácia Y– narodená v rokoch 1978-1994
- Generácia Z– narodená v rokoch 1995-2002

V súčasnosti sa k týmto generáciám radí aj generácia Alfa, ktorá je narodená po roku 2010 a predstavuje „digitálne deti" vyrastajúce v dobe masívneho rozmachu digitálnych technológií, či virtuálnej reality. Označovaná je odborníkmi aj ako „generácia skla" vzhľadom k tomu, že zariadenia s obrazovkami ako sú smartfóny, tablety a počítače sú už bežnou súčasťou jej života.

2 GENERÁCIE V MARKETINGU

Nasledujúca časť bude venovaná popisu hlavných charakteristických čŕt jednotlivých generácií.

Generácia Baby boomers

Označenie Baby boomers dostala táto kohorta práve kvôli tomu, že v danej dobe Amerika a Európa prežívala rozmach novonarodených detí. Špecifickým, a zároveň pre marketing významným atribútom, je pojem zmena, ktorá ich sprevádza celým životom. Baby boomers predstavujú dôležitý trh spotrebiteľov, ktorí budú pre marketing v budúcnosti prínosní, najmä vďaka svojim významným charakteristikám, vzťahujúcim sa k ich veku, a to stabilite, finančnej dostupnosti a uvedomeniu si toho, kam investujú svoje finančné prostriedky. Marketingová literatúra s touto generáciou už začína pracovať, no často sa odvoláva práve na nedostatok poznatkov o potrebách segmentu, podmienených jeho vysokou heterogenitou.

Generácia X

Je prvou, ktorá prekonala štandard života svojich rodičov, po ktorých prevzala pracovné návyky a morálku, avšak už pri tejto generácii sa začali prejavovať podoby individualizmu. Jej základné vlastnosti popísala Vysekalová (2011, s. 260) ktorá hovorí, že generácia X: používa sociálne médiá a trávi viac online viac času, ako ich rodičia, veľa a rada cestuje, považuje sa za väčších realistov, dostatok finančných prostriedkov nestotožňuje priamo s úspechom, prežíva viac stresu, než generácia pred ňou, je presvedčená, že prácou trávi viac času, než kedysi. Táto generácia sa nazýva aj „stratená", preto o nej možno nájsť menej poznatkov. Všeobecne sa táto kohorta javí ako menej zaujímavá a atraktívna.

Generácia Y
Generácia Y je naproti predchádzajúcim v literatúre, odborných publikáciách, ale aj v príspevkoch autorov a článkoch na internete, spomínaná výraznejšie. Od predchádzajúcej sa táto generácia líši vyššou mierou angažovanosti a uplatniteľnosti v spoločenskom živote. Je viac technologicky zdatná a impulzívnejšia. Prejavy tejto generácie už zachytáva teória, rovnako ako prax.

Generácia Z
Táto generácia patrí k jednej z aktuálne najviac analyzovaných a atraktívnych generácií. Vzhľadom k tomu, že sa narodila v čase plne rozvinutých komunikačných technológií a spoločnosti, ktorá ich šírenie podporovala, získala mnoho prívlastkov. Najčastejšie sa však označuje ako digitálna generácia, ale generácia géniov. Larry Rosen z California State University nazval túto generáciu *iGenerácia*. Nielen kvôli značke technológií, ktoré obľubujú, ale aj preto, že si chcú všetko individualizovať na mieru (I = angl. ja). (Bergh, 2012, s.24)

Podľa autorov Kotler a Keller (2013, s.258) sa generácie vyznačujú týmito charakteristikami:

- *Baby boomers* – Chcú si udržať aktívny životný štýl a vyhľadávajú produkty, ktoré im pomôžu nielen k udržaniu, ale aj zlepšeniu svojho života smerom k mladšiemu.
- *Generácia X* – Táto generácia je vnímaná skôr ako prechod medzi technologicky vyspelou generáciou Y a technologicky menej vyspelou Baby boomers.
- *Generácia Y* – Technologicky vyspelá skupina spotrebiteľov, ktorá žije v relatívnom blahobyte, týkajúcom sa externých podmienok a dostupných možností.

Rozdiely medzi generáciami
Rozdiely medzi jednotlivými generáciami sú veľké. Rebríček orientácie priorít a záujmov, sa posúva v závislosti od doby, v ktorej generácie pôsobia. Generácia orientovaná na morálne a pracovné hodnoty, Baby boomers, je ešte tou, ktorá za významné považuje vzostupne pracovnú etiku, toleranciu a hodnoty. Oveľa viac individualistická Generácia X, už považuje za dôležité používanie technológií, ale sústredí sa tiež na pracovnú etiku a konzervatívnosť. Mladá, technologicky zdatná a individualistická generácia Y, preferuje vo všeobecnosti používanie technológií, hudobnú kultúru, ale aj liberálnosť, a to vo všetkých smeroch svojho života. (Bergh, Behrer, 2012, s. 23)

3 GENERÁCIA Y
Generácia Y je tvorená spotrebiteľmi narodenými od druhej polovice 70. rokov do polovice 90. rokov 20. storočia, ktorí svojou cieľavedomosťou, individualizmom a odlišnosťou, zavádzajú nové pravidlá komunikácie a marketingového prístupu. Predstavuje ľudí, ktorí vyrastali v dobe dostupných moderných technologických zariadení.

Generácia Y je definovaná mnohými autormi. Všeobecne popisuje generáciu Y autor Kopecký. Ten tvrdí, že ľudí narodených v rozmedzí 70. a 90. rokov 20. storočia vystihuje optimizmus, cieľavedomosť a praktickosť. V pracovnej oblasti sa zameriavajú na vyhľadávanie atraktívnych pracovných pozícií, ktoré sú dobre finančne ohodnotené a poskytujú im priestor k sebarealizácii. V úlohe zamestnancov vedia byť kolektívni a družní. (Kopecký, 2013, s.225)

Vysekalová uvádza niekoľko charakteristík tohto segmentu. Generácii Y nechýbajú vlastnosti ako sebavedomosť a flexibilita, ktorá sa premieta do viacerých sfér ich života. Vedia vykonávať viacero aktivít naraz, komunikujú s priateľmi, vyhľadávajú novinky na internete, počúvajú hudbu. Ako zákazníci sú nároční, chcú mať produkty dostupné kdekoľvek a kedykoľvek a radi ich hodnotia, či o nich diskutujú prostredníctvom sociálnych médií alebo

diskusných fór. Veľa času trávia online, majú prehľad o marketingových aktivitách, a preto im veria omnoho menej, ako generácia pred ňou. (Vysekalová, 2011, s. 261)

Autori Van den Bergh a Behrer tvrdia, že v generácii Y sa naplno prejavuje trend „neškatuľkovať". Znamená to, že aktuálne riadi ich životný štýl tzv. hipsterstvo, alebo kult neviazaného, odlišného, iného s cieľom diferencovať sa. Podľa nich však často príliš „iné" končí „rovnakým". Rovnakých ľudí ale táto generácia vyčleňuje a označuje ich za „mainstreamových". (Bergh, Behrer, 2012, s.29)

3.1 Parciálne domáce a zahraničné výskumy z oblasti nákupného správania, marketingovej komunikácie a médií v generácii Y

V roku 2010 bol realizovaný rozsiahly medzinárodný výskum mediálnej agentúry Omnicom Media Group, do ktorého sa zapojilo 23 krajín spolu s Českou republikou. Tento výskum má názov Millennials a jeho hlavným zameraním bolo skúmanie nákupného správania, mediálneho správania, ako aj vlastnenie a využívanie moderných komunikačných technológií. Podľa výsledkov tohto výskumu je generácia Y charakterizovaná ako cieľavedomá, ambiciózna, názorovo liberálna a optimistická. Dokáže pracovať s informáciami a chce byť videná v spoločnosti. Ako spotrebitelia generácia Y neuprednostňuje pri nákupoch impulzívne rozhodnutia. Pred nákupom produktov si o nich zisťujú informácie a produkty zvyknú porovnávať. Informácie najčastejšie hľadajú na internete, ale nápomocné bývajú aj informácie od rodiny, priateľov a blízkych. Pri výbere značiek dávajú prednosť tým, ktorým veria, ďalej tým, ktoré im dajú lepšiu kvalitu, ako ostatné alebo ktoré im umožnia šetriť. Preferujú tiež to, akú má značka reputáciu a aký ponúka zákaznícky servis. Generácia Y pri nákupe uprednostňuje značky. (www.omd.cz, 2016)

Podľa tvrdenia spoločnosti Telefónica bol doposiaľ najväčší medzinárodný výskum generácie Y uskutočnený v roku 2013 práve touto spoločnosťou, a to v 27 krajinách sveta na respondentoch vo vekovom rozmedzí 18 - 30 rokov. Podľa dostupných informácií z tohto výskumu s názvom Global Millennial Survey, sa generácia Y najviac orientuje na technológie a verí, že tie im pomôžu v ceste za vzdelaním, prácou, jazykovými skúsenosťami. Súčasne tvrdia, že príliv technológií zvyšuje ich informovanosť a zľahčuje im prístup k informáciám. Pozitívnejší náhľad na technológie majú muži, zatiaľ čo ženy nie sú technológiami očarené do takej miery, aby im pripisovali výnimočnú mieru dôležitosti. (www.survey.telefonica.com, 2016)

Štúdia generácie Y s názvom Millennials + od spoločnosti TNS Slovakia z roku 2014 skúmala na vzorke 1500 ľudí od 12 - 26 rokov ich životný štýl, hodnoty, názory, postoje. Okrem toho sledovala, akým spôsobom prijíma táto generácia médiá, nové technológie a tiež, ako sa správa pri nákupe. Z výsledkov štúdie vyšlo, že bez informácií, technológií a komunikácie by mladí nevedeli žiť. Dominantným médiom mladých ľudí sa stáva internet, ktorému venujú približne 4 hodiny denne. Svoj čas trávia na sociálnych sieťach, komunikujú s priateľmi a mladší hrajú online hry. (www.tns.global.sk, 2016)

V tabuľke 1 sú uvedené výsledky výskumu spoločnosti TNS global, ktorý poukazuje na využívanie komunikačných technológií generáciou Y. Ako je možné vidieť, väčšina ľudí vlastní smartfón, notebook, ale aj osobný počítač, mobilný telefón, či tablet.

Tabuľka 1 Využívanie komunikačných technológií generáciou Y

	MÁM	CHCEM
Smartfón	78%	25%
Mobilný telefón	33%	1%
Notebook	73%	19%

Osobný počítač	45%	4%
Tablet	21%	19%

Zdroj: www.tns-global.sk, 2016

4 ŠPECIFIKÁ MARKETINGOVEJ KOMUNIKÁCIE ZAMERANEJ NA GENERÁCIU Y

V príspevku autoriek Kusá a Grešková s názvom *Marketingová komunikácia ako nástroj na zvyšovanie hodnoty pre zákazníka*, sú publikované niektoré z aktuálnych trendov v marketingovej komunikácii, ktoré sú špecifické práve generáciu Y. Sú nimi nasledovné: (Kusá, Grešková, 2014, s. 303-308)

Využívanie online nástrojov (sociálne médiá, aplikácie v smartfónoch) a online nakupovania

Online prostredie disponuje radou významných atribútov, vďaka ktorým vie marketingová komunikácia pôsobiť omnoho rýchlejšie, dynamickejšie, cielenejšie a kreatívnejšie, ako je tomu pri offline médiách. Na rozdiel od bežných médií, je možné prostredníctvom sociálnych médií vytvoriť interaktívny vzťah medzi firmou a zákazníkom, ku ktorému nebude firma komunikovať len jednosmerne, ale obojstranne. Výhodou sú tiež nižšie náklady na komunikáciu a možnosť aktuálneho sledovania odozvy recipientov. Za dôležité nástroje online komunikácie, ktoré vytvárajú interaktívny spôsob komunikácie, sú považované hlavne sociálne siete (Facebook, Instagram, Forsquare, Snapchat a i.) a mobilné aplikácie.

Prelínanie online a offline prostredia

Akýkoľvek vizuálny, auditívny alebo audiovizuálny obsah je možné v priebehu krátkeho okamihu preniesť do online prostredia, čo vytvára nový rozmer v problematike marketingovej komunikácie, ale aj nákupného správania. Šírenie informácií, komentovanie, zdieľanie posolstva, vyjadrenie názoru, to všetko má k dispozícii užívateľ komunikačného zariadenia s prístupom na internet. Na druhej strane, okamžitá odozva, personalizované posolstvo, dáta o zákazníkovi a presné zacielenie, má k možnosti samotná firma.

Pridaná hodnota v marketingovej komunikácii (aktuálnosť, personalizácia, emocionálny podnet, skúsenosti ostatných, inovatívnosť,...)

Využívanie sociálnych sietí je podmienené odhalením časti identity spotrebiteľa, ktorý svojou činnosťou v online prostredí (pohyb na stránke, komentovanie obsahu, zdieľanie obsahu, nákup cez internet,...) zanecháva informačné stopy. Tým, že firmy disponujú informáciami o zákazníkovi, môžu komunikovať personalizovane a customizovať tak nielen oslovenie, ale aj ponuku priamo na mieru. Jednou z ďalších zásad komunikácie je pravidelná aktualizácia ponúkaných informácií, ktorá zvyšuje imidž a dôveryhodnosť subjektu. Neaktuálne informácie môžu byť podnetom k strate zákazníka. Autenticita komunikácie v prostredí sociálnych sietí vzniká tým, že ich užívatelia vyjadrujú svoje názory na konkrétne značky, produkty alebo firmy, čím vytvárajú akoby „osobné“ odporučenie. Nejde len o komunikáciu vznikajúcu na úrovni užívateľov generácie, ale najmä o komunikáciu zo strany firiem a všeobecne známych osobností. Emocionálne silné posolstvo je oveľa dlhšie zapamätateľné, než emocionálne slabý podnet. Dôležité je, že emócia a podstata produktu alebo služby musia byť v súlade, aby sa nenarušala ich konzistencia a celkový cieľ. Na princípe emocionálne pútavej marketingovej komunikácie v súčasnosti pôsobia mnohé značky. Zaručujú si tak vyšší záujem a vzbudenie o marketing ústnym podaním, tzv. Word of Mouth. Okrem toho je podstatný jazyk, ktorý je poznačený nástrojmi ako hashtagy, emotikony, alebo tzv. gify.

5 VPLYV MARKETINGOVEJ KOMUNIKÁCIE A MÉDIÍ NA SPOTREBITEĽOV GENERÁCIE Y

Generácia Y je poznačená využívaním moderných technológií skutočne intenzívne. Klasické médiá sú pre generáciu Y menej atraktívne a ich pozornosť je upriamená na internet. Zásadnou zmenou prechádzajú aj nástroje marketingovej komunikácie, ktoré preto, aby oslovili generáciu Y, musia byť implementované do online prostredia. Okrem toho sa zmena dotýka aj samotných komunikovaných obsahov.

Dostupnosť a bežné využívanie moderných zariadení na komunikáciu (smartfóny, tablety) spolu s bežným využívaním internetu, však okrem pozitívnych marketingových efektov, spôsobuje aj negatívne dopady. Generácia Y je poznačená tým, že v ich živote sa vytrácajú osobné kontakty, pretože ich nahrádzajú virtuálne priateľstvá. Mladí ľudia nepoznajú cenzúru informácií, na internetových prehliadačoch získajú informácie o všetkom a kedykoľvek. Toto prostredie napomáha mladým budovať si svoju identitu, prejaviť svoju mieru individualizmu, odlišnosti. Pomáha tiež budovať svoj imidž, nadväzovať priateľstvá, ktoré v reálnom svete nemajú a sledovať vzory, ktoré sú im čoraz bližšie. Prostredie sociálnych médií poskytuje priestor k vyjadreniu osobnosti mladého človeka, ktorú napríklad doma často skrýva. O negatívnych dopadoch takejto formy komunikácie niet pochýb. Vytráca sa osobný kontakt medzi reálnymi priateľmi a rodinou, ľudia sa skrývajú za masky niekoho, kým skutočne nie sú. Často sú na kontrole svojich profilov závislí a čakajú, kto z priateľov podporí ich fotografiu formou „lajku“ viac. Myslia si, že si svoju identitu budujú, no strácajú ju.

Vyplv médií a marketingovej komunikácie možno pozorovať aj v oblasti hodnôt mladej generácie. Tie sú orientované predovšetkým na individualizmus a úspech. Generácia Y chce byť odlišná. Nechce sa škatuľkovať, ale chce sa cítiť slobodná a neviazaná. Svojou cieľavedomosťou sa rada presadzuje aj na nedosiahnuteľných miestach. Pokiaľ niečo chce, je schopná a ochotná to hneď dosiahnuť. Ich rozhodnutia sú rozvážnejšie, ale jasnejšie.

Je náročné zaujať stanovisko k tomu, či sa dá nazvať takýto stav pozitívnym. Isté je len to, že osloviť generáciu Y marketingovou komunikáciou tak, ako tomu bolo kedysi, nebude možné.

5.2 Ukážka komunikačnej kampane

Komunikačnou kampaňou, ktorá slúži ako príklad pre demonštrovanie riešenej problematiky, je AXE Etiketa 21. Storočia. Značka AXE najnovšie prišla s online kampaňou pozostávajúcou zo série šiestich krátkych videí, apelujúcou na pravé hodnoty. Jej hlavným protagonistom je osobnosť slovenskej a českej hudobnej scény, vystupujúca pod umeleckým menom Majk Spirit a Starký. Ich úlohou je ukázať dnešných mužom, ako sa správať decentne a byť príťažlivý bez toho, aby sa museli predvádzať. Každé z videí odkazuje na niektorý z fenoménov dnešnej modernej doby – napr. selfies alebo venovanie pozornosti telefónom namiesto ľuďom. Kampaň bola vytvorená v Prahe, no je určená pre český i pre slovenský trh. Jej tvorcom je agentúra Zaraguza, ktorá pri jej stvárnení stavila na jazyk generácie Y. Sloganom kapane je: „Aby si zaujal v dnešnom ukričanom svete, povedz to s kľudom“.

Obrázok 1 Komunikačná kampaň AXE Etiketa 21.storočia



Zdroj: www.strategie.hnoline.sk, 2016

Záver

Generácia Y predstavuje generáciu, ktorá je technológiami poznačená veľmi výrazne. Vplývajú a menia nielen spôsob medziľudskej komunikácie, ale ovplyvňujú aj spôsob nákupného a mediálneho správania. Možno povedať, že technológie v tejto generácii výrazným spôsobom zjednodušili, zrýchlili a najmä zefektívnili komunikáciu. Na druhej strane však informačné a komunikačné technológie veľkou mierou prispeli k tomu, že generácia Y požaduje od firiem, značiek, či spoločností oveľa viac. Okrem toho tiež podporili a neustále podporujú formovanie nových životných hodnôt tejto generácie, a to je individualizmus, záujem o seba a vlastný rozvoj svojich aktivít, záujem o sebarealizáciu, rýchle napĺňanie svojich túžob a nezáujem a spoločné dobro. Virtualita nahradila reálne rozhovory a priateľstvá ľudí, zároveň však podnietila značky komunikovať onlinovo a riadiť sa pravidlami, ktoré platia výhradne u mladých ľudí. Online nástroje majú v súčasnosti veľkú silu, a aj napriek neosobnosti sa stávajú ťažiskovými pri oslovení spotrebiteľov generácie Y.

Zoznam použitých zdrojov

1. DZUROVÁ, M. et al. *Ochrana spotrebiteľa*. Bratislava: Ekonóm, 2011. 279 s. ISBN 978-80-225-3180-1.
2. FORET, M., PROCHÁZKA, P., URBÁNEK, T. *Marketing základy a principy*. Brno: Computer Press, 2005. 149 s. ISBN 80-251-0790-6
3. LOŠŤÁKOVÁ, H. a kol. *Diferencované řízení vztahů se zákazníky*. Praha: Grada Publishing, 2009. 272 s. ISBN 978-80-247-3155-1
4. KOPECKÝ, L. *Public relations. Dějiny - teorie – praxe*. Praha : Grada Publishing, 2013. 240 s. ISBN 978-80-247-4229-8
5. KOTLER, Ph. a kol. *Moderní marketing*. Praha: Grada Publishing, 2007. 1041 s. ISBN 978-80-247- 1545-2
6. KOTLER, P., KELLER, K. L. *Marketing management.* 14 vydání. Praha: Grada Publishing, 2013. 814 s. ISBN 978-80-247-4150-5
7. KUSÁ, A., GREŠKOVÁ, P. *Marketingová komunikácia ako nástroj na zvyšovanie hodnoty pre zákazníka.* In: Globalizácia a jej sociálno-ekonomické dôsledky ´14. Zborník z medzinárodnej vedeckej konferencie, 2014, s.303-308
8. VAN DEN BERGH, J. BEHRER, M. *Jak cool znacky ostávají hot*. Praha: Albatros media, 2012. 225 s. ISBN 978-80-265-0002-5
9. VYSEKALOVÁ, J. a kol. *Chování zákazníka. Jak odkrýt tajemství „černé skrinky“.* Praha: Grada Publishing, 2011. 356 s. ISBN 978-80-247-3528-3
10. *Generace Y nepotřebuje subkultury. Není se proti čemu vymezovat*. [online]. Dostupné na: <http://www.rozhlas.cz/radiowave/spolecnost/_zprava/generace-y-nepotrebuje-subkultury-neni-se-proti-cemu-vymezovat--1455336>
11. *Millennials.* [online]. Dostupné na: <http://www.omd.cz/cs/about us/research/ostatnivyzkumy/2011/11/23/millennials.html>
12. *Spotrebiteľ zasahuje: ako osloviť cieľové skupiny v roku 2013*. [online]. Dostupné na: <http://strategie.hnonline.sk/blogy/spotrebitel-zasahuje-ako-oslovit-cielove-skupiny-v-roku-2013>
13. *Sociálny kontexte generácie Y*. [online]. Dostupné na: <http://www.hrclub.sk/socialny-kontext-generacie-y/>
14. www.survey.telefonica.com/globalreports, 2016.
15. www.tns-global.sk, 2016.

Poďakovanie: Tento príspevok je výstupom projektu FPPV-55-2017 *Vplyv marketingovej komunikácie na spotrebiteľské správanie a tvorbu hodnoty značky v špecifických segmentoch trhu.*

Kontaktné údaje
PhDr. Petra Grešková, PhD.
FMK UCM v Trnave
Námestie J. Herdu 2
917 01 Slovensko
petra.gresko@gmail.com

KOMUNIKÁCIA ZNAČKY V ONLINE PROSTREDÍ

MARKETING COMMUNICATION OF BRAND IN THE ONLINE ENVIRONMENT

Vladimíra Jurišová

Abstrakt

V súčasnosti existuje množstvo úspešných značiek, ktoré boli vybudované bez akýchkoľvek výdavkov na masívnu a efektívnu integrovanú reklamnú kampaň. Namiesto toho sa sústredili na kvalitné internetové riešenia a komunikáciu. Povedomie o firme a posilnenie značky sa tak dá dosiahnuť rýchlo a s nízkymi nákladmi práve prostredníctvom internetu. Vytvorenie kvalitnej online značky si vyžaduje čas, nápady a najmä trpezlivosť. Pre úspech brandingovej kampane je vhodné využiť niekoľko typov online nástrojov ako bannerové kampane, online PR články, microsity, sociálne médiá, videá a podobne. Príspevok sa zaoberá práve problematikou budovania značky v online prostredí. V úvode definujeme pojmy ako značka, branding a online branding a v nosnej časti príspevku sa venujeme konkrétnym nástrojom budovania a komunikácie značky v online prostredí.

Kľúčová slova: *značka, budovanie značky, online marketing.*

Abstract

There are currently a number of successful brands that have been built without any charge to the massive and effective integrated ad campaign. Instead of focusing on quality internet and communication solutions. Awareness of the company and strengthen the brand can therefore be achieved quickly and at low cost is through the internet. Creating high-quality online brand takes time, ideas and especially patience. For the success of branding campaigns it is appropriate to use several types of online tools such as banner campaigns, online PR articles, microsites, social media, videos. The paper deals with legal issues of brand building in the online environment. In the introduction we define concepts such as brand, branding and online branding and the support of the paper we are devoted to a specific tool for building and brand communication in the online environment.

Key words: *brand, branding, online marketing.*

ÚVOD

V súčasnej digitálnej ére spoločnostiam už nestačí byť len pasívne online. Správanie a názory zákazníkov ovplyvňujú celkový úspech značiek, preto je veľmi dôležité, aby spoločnosti sledovali online dianie. V priebehu niekoľkých sekúnd si totiž zákazníci vďaka diskusiám, tweetom, blogom či komentárom môžu vymeniť názory na značku, opísať skúsenosti, ktoré nemusia byť vždy len pozitívne. Pre spoločnosti je dôležité, aby sa vedeli k takýmto feedbackom čo najrýchlejšie dostať a mohli vhodne a včas na ne reagovať. V nasledujúcich kapitolách popíšeme ako budovať značku v online prostredí a ktoré nástroje môžu spoločnosti v rámci online brandingu využiť na komunikáciu so zákazníkmi.

1 POJEM ZNAČKA, BRANDING, ONLINE BRANDING

Pod pojmom značka rozumieme všetky asociácie, ktoré sa objavia v mysli zákazníka v momente, kedy vidí alebo počuje jej názov, logo, symbol, balenie, predstaviteľa, URL, znelku alebo slogan, teda prvky, ktorými sa značka prezentuje navonok.

V odbornej literatúre môžeme nájsť veľké množstvo definícií pojmu značka. Za veľmi presnú možno považovať definíciu Americkej asociácie pre marketing, ktorá ňou pomenúva každý názov, termín, znak, symbol, dizajn alebo ich kombináciu, pomocou ktorej je človek schopný odlišovať výrobky a služby jednotlivých výrobcov na trhu. David A. Aaker definuje značku ako súbor vlastností spojených s názvom a symbolom značky, ktoré buď pridávajú alebo uberajú z hodnoty produktu alebo služby. Značka je nástrojom odlišovania výrobkov jedného výrobcu od výrobkov iného výrobcu. Jej úlohou je vytvorenie čo najsilnejších emocionálnych pút so spotrebiteľmi, budovanie dôvery a podpora vzájomných vzťahov. Najväčšie svetové značky totiž nie sú len zapamätateľné a dôveryhodné, ale usilujú o to, aby sa stali tzv. lovemarkmi v mysliach zákazníkov.

Pod pojmom branding rozumieme metódu na budovanie a posilňovanie značky pomocou rôznych marketingových aktivít. Alina Wheeler tvrdí, že branding je disciplinovaný proces zameraný na budovanie znalosti a zákazníckej lojality ku značke. Je o využití každej príležitosti, ako ľuďom ukázať, prečo uprednostniť jednu značku pred ostatnými. Branding v podobe, aký ho poznáme dnes, pozostáva z piatich základných prvkov, a to positioningu, príbehu, dizajnu, ceny a vzťahu so zákazníkom. Pri brandingu je dôležité, aby všetky jeho prvky boli konzistentné a používali jednotnú stratégiu, ktorá u verejnosti podporí želané vnímanie značky.

Podľa Allena P. Adamsona je budovanie značky alebo branding to, čo spoločnosti robia pre to, aby si spotrebitelia vytvorili také asociácie so značkou, aké my chceme, aby si vytvorili.[1]

Branding je proces používaný na budovanie povedomia a zvýšenie lojality zákazníkov. To si vyžaduje, aby boli majitelia spoločností ochotní investovať do budúcnosti značky. Branding je o využití každej príležitosti na vyjadrenie toho, prečo by ľudia mali voliť tú ktorú značku. Budovanie značky sprevádza túžba byť lídrom na trhu, predbehnúť konkurenciu, a dať zamestnancom najlepšie podmienky, aby si uvedomili, že zákazníci sú dôvodom, prečo firmy budujú značky.[2]

Medzi základné formy použitia brandingu patria logá, farby, obaly a informačné tabule. Ďalej je to reklama, webové stránky, public relations, akcie a podujatia na podporu predaja, zákaznícka linka, dizajn a funkčnosti produktu, hudobné a zvukové efekty a prostredia maloobchodných predajní.

Keď sa pozrieme na branding v online prostredí, tak jeho princípy sa nemenia, nakoľko digitálny svet nezmenil princípy brandingu ako takého, ale skôr umocnil všetko, čo platí pri budovaní výbornej značky. Digitálne technológie len výraznejšie upriamili pozornosť na zásady, ktoré sa využívajú pri budovaní značky.

2 ŠPECIFIKÁ BUDOVANIA ZNAČKY V ONLINE PROSTREDÍ

Okrem tradičných foriem brandingu, ktoré sme si predstavili, existuje celá škála nových foriem, ktoré sú výsledkom digitálnych technológií. Niektoré ovplyvňujú manažéri značiek a mnohé nie. Online reklamu a podporu predaja, mobilné textové správy a iniciatívy, ktoré spájajú tradičné a digitálne formáty väčšinou vytvárajú spoločnosti vlastniace značku spolu s agentúrami. Jednou zo zmien, s ktorou musia značky bojovať, sú formy brandingu, ktoré sa nachádzajú mimo ich kompetencií, ako napríklad blogy, produktové recenzie, informácie šírené ústnym podaním, ktoré vytvárajú online komunity a spotrebiteľmi generovaný obsah, ktorý sa nachádza na stránke YouTube. Aj v tomto prípade, ak sa hovorí o značke, ide o

[1] ADAMSON, A. P.: *Digitálna značka.* Bratislava : Easton Group, 2011, str. 35.
[2] WHEELER, A.: *Designing Brand Identity.* New Jersey : John Wiley & Sons, Inc., 2013, s. 6.

branding, napriek tomu, že za jeho existenciu nie je zodpovedná spoločnosť vlastniaca značku. [3]

Digitálne technológie umožňujú marketérom počúvať každú minútu každého dňa milióny internetových konverzácií medzi účastníkmi z celého sveta. Je možné sledovať, o čom sa hovorí na blogoch, na recenzentských stránkach príslušných produktových kategórií a samotných produktov, na sociálnych sieťach a v podstate na každom digitálnom mieste, kde môžu spotrebitelia vyjadriť svoj názor. Na internete existuje veľa takýchto miest a aj ľudí, ktorí vyjadrujú svoj názor. Internet takto znásobil počet aj rozsah konverzácií. Vďaka pocitu anonymity sú ľudia ochotnejší podeliť sa takmer o všetko. Mnoho dnešných najväčších internetových značiek bolo vybudovaných bez akýchkoľvek výdavkov na televíznu reklamu alebo veľké reklamné kampane. Namiesto toho sa spoliehali na kvalitné a spoľahlivé internetové riešenia a využili internetový marketing, aby dali o sebe vedieť. Veľkým problémom značiek a ich propagácie je zacielenie na správnu cieľovú skupinu. U tradičných foriem reklamy (televízia, tlač, vonkajšia reklama) je obrovský vplyv – informácia sa dostane k veľkému množstvu ľudí, ale len u malej časti z nich nastáva potreba a záujem o produkt alebo službu. Výsledkom sú neefektívne využité prostriedky na reklamu a nízke ROI (Return of Investment). Internet ako reklamné médium umožňuje dosiahnuť vyššiu efektivitu vďaka možnosti presnejšieho zacielenia. Dáva priestor osloviť špecifickú skupinu populácie podľa pohlavia, veku, záujmu či lokality, zvoliť dennú dobu, ktorá je pre zasiahnutie cieľovej skupiny optimálnejšia, zacieliť len na osoby, ktoré už web navštívili a podobne.

Ďalšou vecou, ktorú online prostredie zdôraznilo, je okrem toho o čom hovoria aj to, ako sa správajú. Obzvlášť v súvislosti so svojimi nákupnými zvykmi a aktivitami. Marketéri vedia v reálnom čase sledovať, čo ľudia vyhľadávajú, aký je ich nákupný proces, akým spôsobom porovnávajú produkty, služby a ich ceny, kam si chodia po radu, ktoré ponuky považujú za relevantné, o aké špecifické vlastnosti produktu sa zaujímajú. Schopnosť sledovať to čo spotrebitelia robia a nielen to, čo tvrdia, že robia, sa stala neuveriteľnou výhodou pre spoločnosti.[4]

Digitálna technológia kladie dôraz na kreativitu, ktorá je dôležitejším faktorom ako rozpočet. Vedieť, čo je potrebné na to, aby sa príbeh virálne rozšíril, je kľúčovým komponentom v organizáciách, ktorých značky prekonávajú ostatné v popularite, nezávisle od ekonomickej situácie. Dobré spoločnosti využívajú digitálne nástroje a postupy, aby sa spojili so spotrebiteľmi relevantnejšími spôsobmi a využívajú cielenie na presne definované cieľové skupiny spotrebiteľov.

3 NÁSTROJE MARKETINGOVEJ KOMUNIKÁCIE VYUŽÍVANÉ NA BUDOVANIE ZNAČKY V ONLINE PROSTREDÍ

Významným nástrojom online komunikácie značky je internetová reklama. V súčasnosti existuje mnoho druhov reklamy na internete, ktorá slúži na komunikáciu a propagáciu značky. Medzi niektoré druhy internetovej reklamy možno zaradiť:

- web stránku,
- klasickú PPC reklama v Google,
- remarketingovú reklamu,
- PPC reklamu cielenú na záujmy,
- newslettre,
- SEO – optimalizáciu vyhľadávania,
- mobilnú reklamu, mobilnú verziu web stránky,
- PPC reklamy podľa rôznych cielení,
- bannerovú reklamu,

[3] ADAMSON, A. P.: *Digitálna značka.* Bratislava : Easton Group, 2011, str. 36.
[4] ADAMSON, A. P.: *Digitálna značka.* Bratislava : Easton Group, 2011, str. 4.

- affiliate marketing,
- sociálne siete,
- zľavové portály a cashback,
- obsahové web stránky,
- virál, mobilné aplikácie, infografiku, augmented reality.

Bližšie si predstavíme niektoré z nich:

Webová stránka
Dokument obsahujúci hypertext, obrázky iné multimediálne prvky uložený obyčajne na webovom serveri, prístupný prostredníctvom služby World Wide Web v sieti internet. Zobrazuje sa používateľovi pomocou webového prehliadača. Slúži na propagáciu značky, zákazníci tu väčšinou nájdu všetky informácie o produkte, službe alebo firme.

PPC reklama v Google
PPC reklama je internetová reklama označovaná ako pay-per-click (platba za klik) je najlepšia forma ako získať na webové stránky cielených návštevníkov a potenciálnych zákazníkov. Princíp PPC spočíva v tom, že inzerent za reklamu platí až vo chvíli, kedy reklama zaúčinkovala, teda v momente, kedy na ňu používateľ klikol. Pri PPC reklame sa neplatí za zobrazenie inzerátu, ale za obsah, ktorý distribuujú a zdieľajú jednotlivci na webe. Slúžia aj ako významný moderný nástroj na budovanie značky.

Remarketing
Forma digitálnej reklamy, ktorá umožňuje inzerentom zobrazovať cielené reklamy na ľudí, ktorí predtým navštívili naše webové stránky alebo využili mobilnú aplikáciu. Reklama tak neustále upozorňuje na existenciu webu a aj keď návštevník pred objednávkou navštívi niekoľko iných webov s podobnou ponukou, návštevníka prenasleduje reklama práve na náš web. Klient sa vráti a nakúpi.

Newsletter
Jeden z najpoužívanejších a najefektívnejších nástrojov online marketingu (z iného pohľadu direct marketingu). Ide o zasielanie relevantných informácií, či reklamných informácií prostredníctvom emailu na základe predošlého súhlasu alebo vyžiadania zasielania. Takto dokážeme jednoducho budovať vzťah so zákazníkom a informovať ho o novinkách.

Search Engine Optimization
SEO je skratka pre optimalizáciu pre vyhľadávače. Je to proces ovplyvňovania zobrazenia web stránok vo vyhľadávači na základe organických výsledkov vyhľadávania. Všetky hlavné vyhľadávače ako Google, Bing a Yahoo majú primárne výsledky vyhľadávania, kde sú zobrazené webové stránky a ďalší obsah, ako sú videá a na základe toho riadi, čo vyhľadávač považuje za najdôležitejšie pre používateľov.

Bannerová reklama
Je veľmi populárna pri budovaní značky a zasiahnutí masového publika. Banner je druh reklamy používaný na web stránkach. Ide o spravidla obdĺžnikový obrázok či animáciu, prípadne interaktívne grafiku zobrazenú najčastejšie blízko okraja obrazovky. Bannery tvoria stále jednu z najčastejších foriem reklamy na internete.

Sociálne médiá
Sociálne médiá sú online platformy, na ktorých vzniká obsah a umožňujú používateľom vytvárať webové stránky s osobnými portfóliami a záujmami. Tieto stránky slúžia na prepojenie s priateľmi, kolegami a ostatnými užívateľmi na účely zdieľania spoločného obsahu a komunikáciu. Medzi sociálne média patrí Facebook, LinkedIn, Twitter, Instagram.
Na Slovensku značky na svoju propagáciu využívajú sociálnu sieť Facebook. Je to z toho dôvodu, že na ňom dokážu zasiahnuť najväčšiu cieľovú skupinu. V prípade Facebooku prestáva platiť, že propagácia značky je zadarmo. Vytvorenie stránky značky je zadarmo, takže jej obsah môže vzhliadnuť ktokoľvek. Facebook však neustále znižuje organický zásah z dôvodu zahltenia používateľov neplatenou reklamou a značkami. A práve preto značky často siahajú po platenej reklame. Jej výhodou je, že dokáže presne cieliť na vybrané cieľové skupiny a obsah sa tak dostáva k relevantným fanúšikom.

Blogy
Blogy patria k najstarším a najobľúbenejším sociálnym médiám. Blogy sú často vnímané ako on-line časopisy, ktoré zoraďujú obsah chronologicky, alebo podľa dátumu, mesiaca, roku a kategórie. Užívatelia môžu taktiež vytvárať "vlogy" alebo video blogy, ktoré obsahujú zdieľané alebo domáce videá. Medzi blogovacie webové stránky patrí napríklad WordPress, Blogger a Tumblr.

Mikroblogy
Mikroblogy sú blogovanie nástroje, ktoré obsahujú krátke príspevky, na rozdiel od žurnalistického štýlu. Používatelia sú obvykle obmedzení na niekoľko riadkov textu, alebo nahratie obrázkov alebo videí. Mikrobloging je vhodný najmä na zdieľanie rýchlych správ a distribúciu obsahu prostredníctvom mobilných zariadení. Pozoruhodné mikroblogovacie miesta sú Twitter a Tumblr. Avšak, sociálne siete, ako je Facebook, Google+ a LinkedIn majú tiež podobné vlastnosti ako mikroblog.

Portály na zdieľanie médií
Používatelia takýchto komunít zhromažďujú a usporadúvajú, zdieľajú a komentujú rôzne obsahy ako obrázky a videá. Výrazne zrýchľujú šírenie správ a umožňujú neznámym ľudom stať sa prakticky cez noc slávnymi a vytvárať firmám virálne kampane. Teda kampane, ktoré šíria správu tým, že jednotlivci, ktorých zaujme, zdieľajú odkazy svojim známym a dosah napríklad reklamného videa, tak veľmi rýchlo geometricky rastie. Príkladmi sú YouTube a Flickr.

Diskusné fóra a diskusné skupiny
Diskusné fóra a diskusné skupiny začínali ako diskusné fóra dnes fungujú ako štruktúrované diskusné skupiny, kde ľudia vkladajú otázky alebo názory a ostatní účastníci na ne môžu reagovať. Môže ísť o verejné diskusie. Príkladom môže byť fórum macrumors.com, ktoré sa zaoberá všetkým čo súvisí so spoločnosťou Apple.

Wiki
Wiki dovoľuje komunitám ľudí pridávať a editovať obsah v databáze. Využíva sa napríklad na vnútornú firemnú komunikáciu, kde majú zamestnanci všetky informácie a vedia ich ľahko aktualizovať. Najznámejšou je Wikipedia.

Podcasty
Podcasty sú audio a video súbory, ktoré sú k dispozícii prostredníctvom predplatenej služby, ako je napríklad iTunes od spoločnosti Apple. Pojem "podcast" je neologizmus odvodený od

"broadcast" (vysielanie) a "Pod" (ako v "iPod"), pretože podcasty sa často počúvajú na prenosných nosičoch.

Ďalšími príkladmi sociálnych médií sú:

- Virtuálne sociálne svety (Second Life).
- Hudba a jej zdieľanie (Spotify).
- Hodnotenia a recenzie (Foursquare).

Google Analytics

Analytika nie je typ internetovej reklamy, ale vďaka analytike vieme vyhodnotiť efektivitu reklamy a sledovať dôležité metriky web stránky. Aby sme vedeli, či je internetová reklama efektívna a pomáha nám pri budovaní značky, je dôležité merať výsledky. Na to slúžia Google Analytics. Služba Google Analytics umožňuje nielen merať predaj a konverzie, poskytuje tiež aktuálne prehľady o využívaní stránok, rôznych prístupových cestách používateľov na stránky a možnostiach, ako si ich udržať, aby prišli znovu.[5]

4 ZÁVER

V príspevku sme priblížili tému budovania značky v online prostredí. V jednotlivých kapitolách sme sa venovali značke, online brandingu, a prešli sme jednotlivé nástroje, ktoré môže značka využiť na komunikáciu so zákazníkmi v online priestore. Na záver možno konštatovať, že digitálny branding je vhodný nielen pre veľké spoločnosti, ale aj pre spoločnosti s menšími rozpočtami, ktorým prináša väčší prínos za menej nákladov. Na online brandingovú kampaň je vhodné využiť kombináciu niekoľkých vyššie spomínaných nástrojov, ktoré sú cenovo dostupnejšie v porovnaní s masívnou kampaňou s využitím offline komunikačných nástrojov ako je TV, rádio, print.

Príspevok vznikol na základe riešenia projektu VEGA 1/0640/15: „Koncepcia Phygital a jej uplatnenie v udržateľnom integrovanom environmentálnom manažmente podnikov“.

Použitá literatura

1. AAKER, D. 2012. *Brand Leadership.* New York : Simon and Schuster, 2012. 352 s. ISBN 9781471104374.
2. ADAMSON, A.P. 2011. *Digitálna značka*. Bratislava: Eastone Books, 2011. ISBN 978-80-8109-192-6.
3. JANOUCH, V. 2010. *Internetový marketing.* Praha : Computer Press, 2010. 304 s. ISBN 9788025127957.
4. KRISHNAMURTHY, S. 2006. *Contemporary Research in E-marketing.* Hershey : Idea Group Publishing, 2006. 375 s. ISBN 9781591408260.
5. SCOTT, D. M. 2010. *Nové pravidlá marketingu a PR*. Bratislava : Eastone Books, 2010, 257s. ISBN 978-80-8109-149-0.
6. WHEELER, A. 2012. *Designing Brand Identity.* 4. vyd. New Jersey : John Wiley & Sons, Inc., 2012. 326 s. ISBN 978-1-118-09920-9.
7. ZAUŠKOVÁ, A. – GRIB, L. 2015. Šírenie povedomia ekoinovačných procesov s podporou digitálneho marketingu. In: Quaere 2015: recenzovaný sborník příspěvků vědecké konference doktorandů a odborných asistentů roč. V. – 1. vyd. Hradec Králové : Magnanimitas 2015. s. 57-64. ISBN 978-80-87952-10-8.

[5] *Google Analytics.* [online]. Dostupné na internete: <http://www.google.com/analytics/features/>.

Kontaktné údaje
Mgr. Vladimíra Jurišová, PhD.
Katedra marketingovej komunikácie
Fakulta masmediálnej komunikácie
Univerzita sv. Cyrila a Metoda
Námestie J. Hedru 2
917 00 Trnava, Slovenská republika
Tel: +421915966753
Email: vladimira.jurisova@gmail.com

VYUŽITIE KONKRÉTNYCH PRVKOV ONLINE MARKETINGU V MALÝCH A STREDNÝCH PODNIKOCH

USING OF ELEMENTS OF ONLINE MARKETING IN SMALL AND MEDIUM ENTERPRISES

Adam Bartoš, Monika Jančovičová

Abstrakt

Problematika marketingu patrí k častým témam vo vedeckých a odborných kruhoch. Postupným vývojom sa menili prístupy k marketingu a jeho prvkom. Medzi hlavné ciele marketingu patrí prezentácia predávaných tovarov daného podniku a jeho činnosti. Z uvedeného vyplýva, že záujem zviditeľniť sa majú nielen podniky zamerané na dosahovanie zisku, ale aj podniky, ktorých hlavným cieľom nie je dosahovanie zisku. Vznik internetu priniesol do oblasti marketingu nové možnosti a spôsoby prezentácie a predaja tovarov. Internetové stránky ako aj stránky na sociálnych sieťach sa stali dostupnejšími pre podniky. V článku sa zameriavame na mieru využívania vybraných prvkov online marketingu vo výrobných družstvách, ktorých primárnym cieľom nie je dosahovanie zisku a ziskovo zameraných spoločností s ručením obmedzeným.

Kľúčové slová: *internet, družstvá, marketing, sociálne siete, small and medium entrepreneurship*

Abstract

Marketing issues are very frequented topics in scientific and professional sphere. Approaches to marketing and its elements were changed by gradual developments. The main aim of marketing is a presentation of goods of the company and its activities. So it means that an interest of to be known for consumer have not only companies which main aim is making profit but also companies which are not oriented to profit. The internet bring to sphere of marketing new possibilities and ways of presenting and selling goods. Websites and social network are more accessible to companies. The topic focuses on the use of selected elements of online marketing in production cooperatives whose primary goal is not making profit and in Limited Liability Companies.

Keywords: *internet, cooperatives, marketing, social network, malé a stredné podnikanie*

1. ÚVOD

Ku koncu septembra pôsobilo v Slovenskej republike celkovo 591 483 podnikateľských subjektov, z toho 197 830 spoločností s ručením obmedzeným. Družstiev k rovnakému obdobiu pôsobilo na našom území 1 358 (ŠÚ SR, 2017). Účelom podnikateľskej činnosti je dosahovanie zisku. Aby mohol byť uvedený predpoklad naplnený, je potrebné oboznámiť konkrétny zákaznícky segment, aké potreby spotrebiteľov môže podnik uspokojiť. Prezentácia podniku je jednou z oblastí, ktorej venuje svoju pozornosť marketing.

Kotler (2015) zdôrazňuje, že úlohou marketingu je vedieť identifikovať a uspokojovať ľudské a sociálne potreby. Uvádza príklad spoločnosti Google, ktorá identifikovala potrebu efektívnejšieho vyhľadávania informácii alebo Ikea, ktorá ponúka moderný nábytok za prijateľnú cenu. Potrebu poznania cieľového segmentu zdôrazňuje aj Drucker (1973). Konkrétnejší pohľad má Halada (2015), ktorý chápe marketing ako proces plánovania

a realizácie podpory a distribúcie ideí, služieb a tovarov a cenovej politiky s cieľom uspokojovať ciele organizácii a jednotlivcov. K základným funkciám marketingu uvádza riadenie, prieskum trhu, výskum, vývoj, logistiku, tvorbu cien, predaj a servis. Dané funkcie sa prelínajú a nadväzujú na seba v podobe marketingovej stratégie.
Z uvedeného vyplýva, že ak chce podnik dosahovať zisk, je nutné orientovať sa na potreby a poznanie spotrebiteľa. Podniky by mali predovšetkým komunikovať aký problém alebo potrebu sú schopné uspokojiť. Záujem o oslovenie čo najširšieho počtu potenciálnych klientov má veľký počet obchodných spoločností.

Tabuľka č. 1: Vývoj počtu obchodných spoločností a družstiev v období r. 2011-2016 v SR

Rok	2011	2012	2013	2014	2015	2016	Absolútny index rastu
Obchodné spoločnosti	145 110	155 689	171 941	184 258	183 531	200 141	1,38
Index rastu	-	1,07	1,10	1,07	0,99	1,09	-
Družstvá	1 573	1 542	1 546	1 542	1 323	1 353	0,86
Index rastu	-	0,98	1,01	0,99	0,86	1,02	-

Zdroj: http://datacube.statistics.sk/#!/view/sk/; vlastné spracovanie

Počet obchodných spoločností sa vo vybranom období zvýšil takmer o 40 %. Mierny pokles v roku 2015 môže byť spôsobený zavedením daňovej licencie, kedy najmä neaktívne podniky rušili živnosti. Opačný trend bol zaznamenaný pri družstvách, ich počet v sledovanom období klesol. V poslednom roku však došlo k miernemu nárastu. Najväčší pokles bol zaznamenaný rovnako ako pri obchodných spoločnostiach, v roku 2015.
Považujeme za dôležité upozorniť na osobitné postavenie družstiev nielen v rámci legislatívy, kde sú uvedené ako forma podnikania, ale aj v širšom spektre. Obchodný zákonník definuje družstvo ako *„...spoločenstvo neuzavretého počtu osôb založeným za účelom podnikania alebo zabezpečovania hospodárskych, sociálnych alebo iných potrieb svojich členov.“*. (Zákon č. 513/1991, Z. z.). Členstvo v družstve je neuzavreté, to znamená otvorenosť pre nových členov. Vejdělek (1997) zastáva názor, že práve príchod a odchod členov nemá vplyv na samotnú existenciu družstva. Na druhej strane, v deväťdesiatych rokoch, vplyvom legislatívnych a hospodárskych zmien, nastalo hromadné zníženie členských základní najmä poľnohospodárskych družstiev, čo malo zásadný, až likvidačný vplyv na dané subjekty. Je dôležité zdôrazniť, že hromadný odchod členov bol následkom legislatívnych zmien.
Okrem vymedzení v Obchodnom zákonníku by sa malo každé družstvo riadiť družstevnými princípmi schválenými Medzinárodným družstevným zväzom:

1. Dobrovoľnosť a otvorené členstvo – znamená možnosť vstupu pre všetkých záujemcov bez rozdielov založených na rasovej, sociálnej, politickej, či náboženskej diskriminácie. Podmienkou je akceptovanie stanov a nárokov vyplývajúcich z členstva.
2. Demokratická kontrola členmi – okrem kontrolnej komisie môžu činnosť družstva kontrolovať aj jeho členovia.
3. Ekonomická participácia členov – členovia prispievajú do družstva svojim kapitálom a demokraticky ho kontrolujú.
4. Autonómia a nezávislosť – ide o autonómne, samostatné subjekty riadené členmi. V prípade, ak družstvo vstupuje do partnerstiev alebo získava externé zdroje, musí ostať autonómia a riadenie členmi zachované.

5. Vzdelávanie a informovanosť – družstvá poskytujú svojim členom možnosť vzdelávania, členovia informujú verejnosť o výhodách členstva v družstve.
6. Spolupráca s inými družstvami - družstvá slúžia čo najefektívnejšie svojim členom a mali by posilňovať družstevníctvo prostredníctvom spolupráce s národnými, regionálnymi a miestnymi štruktúrami.
7. Záujem o komunitu – prostredníctvom prijatej politiky sa družstvá snažia o udržateľný rozvoj komunity.

Okrem podnikateľskej činnosti robí družstvo družstvom dodržiavanie uvedených princípov. Nemožno konštatovať podobnosť s neziskovou organizáciou. Ak družstvo dosiahne zisk, môže ho rozdeliť medzi členov, ktorí majú v podniku podiely a aktívnejšie sa zaujímajú o jeho činnosť a zúčastňujú sa na riadení.

Domnievame sa, že aj napriek uvedeným rozdielom je pre oba subjekty podstatné dosahovanie zisku. Pre obchodné spoločnosti to znamená dosiahnutie účelu podnikania, pre družstvá zdroj financovania ďalšieho rozvoja, starostlivosti o členov a spoločnosť.

Podniky sú súčasťou trhu, v ktorom pôsobia konkurenčné subjekty, ktoré majú väčšiu kapitálovú silu, kvalitnejšiu technológiu, kvalifikovanejších pracovníkov, lepší prístup k externým zdrojom financovania. Uvedený typ podnikov predstavuje výraznú konkurenciu pre kapitálovo slabšie podniky. Väčšinou ide o mikro a malé podniky. Práve uvedené faktory patria spolu s ostatnými k obmedzujúcim faktorom podnikania malých a stredných podnikov (Jáč, Rydvalová, Žižka, 2005):

- Nepriaznivá ekonomická situácia.
- Domáca konkurencia.
- Úrokové miery.
- Legislatívne obmedzenia.
- Dostupnosť financovania.
- Zahraničná konkurencia.
- Náklady na energie.

Práve za účelom eliminácie alebo zmiernenia uvedených faktorov sa najmä malé a stredné podniky združujú v organizáciách presadzujúce vhodnejšie legislatívne podmienky, spoločné oprávnené záujmy a poskytujúce pomoc členom pri podnikateľskej činnosti, rozvoji zamestnancov. Ako príklad konkrétnych združení môžeme uviesť Slovenskú asociáciu malých a stredných podnikateľov a živnostníkov, zameriavajúce sa na:

- zastupovanie členov voči ostatným subjektom hospodárskeho a spoločenského života na Slovensku,
- vytvára podmienky na šírenie informácii medzi členov, zovšeobecňuje poznatky a skúsenosti z podnikateľskej činnosti,
- usporadúva kurzy, semináre a školenia, stáže, výstavy,
- predkladá návrhy a pripomienky na riešenie oprávnených záujmov.

Podobné záujmy členských družstiev presadzuje aj Coop Produkt Slovensko združujúce výrobné družstvá. Okrem podobných záujmov ako Slovenská asociácia malých a stredných podnikateľov a živnostníkov presadzuje aj šírenie myšlienok družstevníctva, vytvára podmienky na nadväzovanie spolupráce s ostatnými družstevnými organizáciami zahŕňajúce aj zahraničné. Vykonáva poradenskú činnosť v oblasti zakladania družstiev, ekonomickej a legislatívnej sfére.

Dané organizácie združujúce nielen podnikateľské subjekty, ale aj organizácie typu univerzity, školy, predstaviteľov samosprávy, vládnych inštitúcii, výrazným spôsobom pomáhajú členom presadzovaním návrhov a opatrení do praxe.

Určitý spôsob aktivity pre presadenie sa na trhu však musia vyvíjať aj samotné podnikateľské subjekty. Okrem presadenia konceptu 4C (customer value, communication, convenience, cost to the customer) nielen v procese plánovania, ale aj v praxi a vnímania predávaného tovaru

ako určitého spôsobu splnenia potreby alebo vyriešenia problému zákazníka je pre podnik dôležité sa prezentovať voči konkrétnemu segmentu. Rovnako je dôležité budovať vzťahy voči potenciálnym zákazníkom, miestnej komunite, organizáciám, dodávateľom. Ako vhodné a v dnešnej dobe podľa nášho názoru nevyhnutné nástroje na budovanie vzťahov a oslovovanie nových zákazníkov vnímame nástroje online marketingu, konkrétne internetovú stránku a stránku na sociálnej sieti.

Internetové, nazývané aj webové stránky sa stali nevyhnutnou súčasťou komunikačného mixu podnikov, ale aj všetkých ďalších inštitúcii. Môžu byť vnímané ako nástroj direct marketingu, pretože umožňujú priamy predaj, sú interaktívne, dokážu prispôsobiť obsah podľa preferencii konkrétnemu návštevníkovi a tiež je možné merať ich efektivitu. Pri tvorbe internetových stránok je dôležité stanoviť ich hlavný cieľ. Môže ísť napríklad o priamy predaj, získavanie potenciálnych zákazníkov, komunikácia s kľúčovými organizáciami – stakeholdermi alebo tvorba a posilňovanie imidžu značky. Účelov zriadenia webovej stránky môže byť viacero. Vo všetkých prípadoch je však nutné dodržať určité kritériá. Karlíček a Král (2011) uvádza niekoľko z nich:

- Atraktívny obsah: internetové stránky musia byť pre danú skupinu užívateľov obsahovo zaujímavé a atraktívne. Inak jej návštevník nebude motivovaný k jej podrobnejšiemu prezeraniu a opätovným návštevám.
- K lepšej atraktivite môže pomôcť interaktivita stránky. Organizácie môžu umožniť napríklad diskusiu užívateľov, kde môžu zdieľať svoje názory a skúsenosti. Fórum by malo byť sledované organizáciou za účelom odpovedí na jednotlivé reakcie. (Neelotpaul, 2010).
- Jednoduchá vyhľadateľnosť: internet je tvorený významným množstvom webových stránok. Aby bola internetová stránka podniku účinná, musí byť jednoducho vyhľadateľná.
- Jednoduché používanie: orientácia na stránke musí byť intuitívna, prijateľná pre používateľov.
- Grafický dizajn: neprofesionálny, zastaraný, neestetický dizajn odrádza návštevníkov od ďalšej návštevy a podrobnejšieho prezerania internetovej stránky. Nevhodný dizajn má tiež vplyv na vnímanie podniku zákazníkom.

Čitateľnosť textu na výrobku tiež predstavuje podstatné kritérium, ktoré rozhodne o nákupnom rozhodnutí. Čichovský (2012) vo svojej publikácii uvádza, že 83 % potenciálnych kupujúcich si tovar nekúpi, pretože nie sú schopní vzhľadom na veľkosť písma prečítať informácie určené pre zákazníka. Do určitej miery je za uvedený stav zodpovedná aj legislatíva, ktorá nariaďuje výrobcom, ktoré informácie majú byť na produkte uvedené. Zdravé ľudské oko nedokáže prečítať zo vzdialenosti 30 cm písmo menšie ako 1,1 mm. Preto niektoré supermarkety ponúkajú pri vchode darček – lupu s logom supermarketu.

Okrem uvedených kritérií prispievajú k vyššej návštevnosti aj rýchlosť načítania stránky, jej možnosť zobrazenia na rôznych zariadeniach a iné.

Vybraná sociálna sieť, Facebook, má v súčasnosti stále veľký potenciál. Predstavuje marketingovú príležitosť pre podniky (s ohľadom na špecifickú cieľovú skupinu). S rastúcim počtom ľudí je možné získavať viac kvalitnejších informácii o produktoch, službách a podniku z pohľadu zákazníka. Získanie nových fanúšikov ešte neznamená predaj. Prostredníctvom komunikácie s fanúšikmi môže podnik vybudovať lepšie vzťahy so zákazníkmi, ktorí mu poskytnú cennú spätnú väzbu. Názory sú na Facebooku šírené veľmi rýchlo, čo môže byť pre podniky aj nebezpečné. Pokiaľ sa ale podarí vytvoriť skupinu pre určitú značku, je to pre podnik vynikajúca príležitosť k ovplyvneniu a získaniu zákazníkov (Janouch, 2010). Facebook ponúka širokú škálu sociálnych aplikácii. Ide napríklad o stránky pre fanúšikov, profil organizácie, automatické aktualizácie vybraných príspevkov,

zvýraznenie a iné. Napriek tomu je vhodné vytvoriť špecializovanú aplikáciu pre Facebook, ktorá by podporila nasledovné kampane (Treadaway, Smith, 2010):

- Uvedenie nového produktu alebo služby – môže ísť o vytvorenie aplikácie, ktorá kreatívnym spôsobom ukáže hodnotu tovaru.
- Intenzívne budovanie značky – aplikáciou v podobe hry, interaktivity získa používateľ pozitívne zážitky súvisiace s konkrétnou značkou alebo produktom.
- Logické rozšírenie značky prostredníctvom vybraných príspevkov alebo profilu – niektoré organizácie poskytujú produkty alebo služby, ktoré sa prirodzene hodia ako motív na vytvorenie aplikácie a posilňujú tak celkovú ponúkanú hodnotu.

Pre podnik je dôležité, aby konkrétna aplikácia motivovala užívateľa k určitej akcii, ktorá podporí stanovené ciele alebo posolstvo spojené so značkou. Aplikácie môžu slúžiť inému účelu, avšak využívaním aplikácie budú používatelia konfrontovaní s danou značkou alebo produktom.

2. CIELE

Hlavný cieľ práce je zameraný na komparáciu využívania vybraných marketingových inovácii vo výrobných družstvách a obchodných spoločnostiach.

Na dosiahnutie hlavného cieľa sme si určili nasledovné parciálne ciele:

- zber a selekcia knižných, časopiseckých a internetových zdrojov,
- zhodnotiť úroveň využívania marketingových inovácií v obchodných spoločnostiach podľa počtu zamestnancov,
- zhodnotiť úroveň využívania vybraných marketingových inovácii vo výrobných družstvách podľa počtu zamestnancov.

3. METÓDY A METODIKA

Pri spracúvaní práce sme použili štandardné vedecké metódy analýza a syntéza, komparácia, indukcia, dedukcia a vybrané matematické metódy. Spracovaniu práce predchádzalo oboznámenie sa s problematikou družstevníctva, výber a selekcia vhodných knižných, časopiseckých a internetových zdrojov. Pri výbere skúmaných subjektov sme sa zamerali na predstaviteľov družstevného hnutia a združenia súkromných podnikateľov, konkrétne Coop Produkt Slovensko (združenie výrobných družstiev) a Slovenskú asociáciu malých podnikov, kde sú členmi obchodné spoločnosti a živnostníci. Na účely nášho výskumu sme sa sústredili na obchodné spoločnosti, konkrétne spoločnosti s ručením obmedzeným.

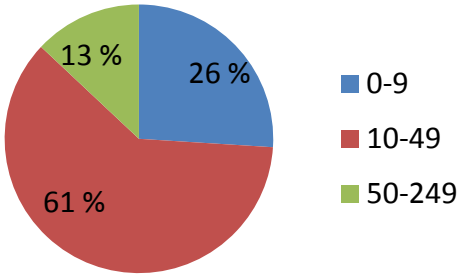
Zistené výsledky sme usporiadali podľa počtu zamestnancov. Na určenie intervalov sme využili odporúčanie Európskej komisie č. 2003/361/EC. Po zistení výsledkov sme formulovali konkrétne závery a odporúčania.

4. VYUŽÍVANIE VYBRANÝCH MARKETINGOVÝCH INOVÁCII V PODNIKOCH

V nasledujúcej časti sa zameriame na využívanie konkrétnych inovácii v oblasti marketingu vo vybraných podnikoch.

Pre skúmaný súbor výrobných družstiev je typická prevaha malých podnikov, nasledujú mikro podniky a stredných podnikov je v danom súbore najmenej. Kategóriu veľkých podnikov, 250 a viac zamestnancov, súbor neobsahuje.

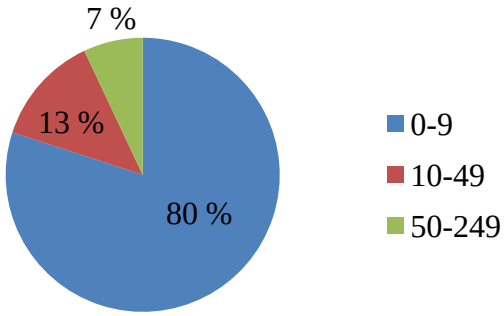
Graf č. 1: Štruktúra skúmaných výrobných družstiev podľa počtu zamestnancov



Zdroj: vlastné spracovanie

V skúmanom súbore obchodných spoločností prevažujú mikro podniky, druhý najväčší počet dosahujú malé, nasledované stredným podnikmi. Rovnako ako v predchádzajúcom súbore sa veľké podniky nenachádzajú.

Graf č. 2: Štruktúra skúmaných obchodných spoločností podľa počtu zamestnancov



Zdroj: vlastné spracovanie

Marketing na internete môžeme považovať za dynamicky sa rozvíjajúcu subdisciplínu marketingu. Vývoj uvádza autor na svetovej publikácii o marketingu od Kotlera. V českom preklade z roku 2001 v nej môžeme nájsť len niekoľko základných príkladov a pojmov z uvedenej oblasti. V publikácii z roku 2007 sú príklady z oblasti e-business uvedené veľmi často a možno pozorovať aj javy meniace teóriu marketingu. Ďalší preklad z roku 2013 opúšťa pôvodne zažité klasické marketingové prístupy v dôsledku spoločenských zmien, vývoja ekonomík a globálneho trhu, ale aj v dôsledku dopadu informačných a komunikačných technológii. Oproti klasickému marketingu má marketing na internete niekoľko zvláštností. Je to napríklad 24 hodinová dostupnosť, 7 dní v týždni a 365 dní v roku, dobrá možnosť monitorovania, merania a vyhodnocovania, schopnosť komunikácie so širokou, až globálnou verejnosťou. Ponúka tiež možnosť individuálneho prístupu ku každému zákazníkovi (Eger, 2017).
Janouch (2010) však zdôrazňuje veľmi dôležitú súčasť marketingu na internete. Ide o online reputáciu, ktorá znamená prítomnosť na internete v zmysle zanechávania stôp. Na internete sú marketingové aktivity navzájom previazané, vzájomne sa doplňujú a podmieňujú. Je preto dôležité využívať všetky nástroje a priestor (prostredie). Rozumie ním webové stránky, blogy, profily na sociálnych sieťach a iné.
Celkom nový marketingový priestor vzniká prepojením internetu a televízie. Z prijímača sa tak stane zároveň aj vysielač, ktorý bude zasielať spätnú väzbu prenášať späť k vysielateľovi. E-maily, obľúbené webové stránky a aplikácie sú dostupné vďaka prepojeniu internetu

a televízie. Televízia na internete nepreukázala očakávaný úspech, no internet v televízii už v súčasnosti preukazuje silný marketingový potenciál. Vďaka kombinácii od užívateľa získaných dát bude možné reklamu ešte viac prispôsobiť konkrétnemu užívateľovi. Autor uvádza konkrétny príklad využitia kombinácie smart televízie a technológie na báze aplikácie Google Analytics. Deň pred narodeninami manželky môže v priebehu sledovania športového spravodajstva ponúknuť divákovi na základe jej obľúbených webových stránok vhodný darček a zároveň poradí, kde ho obstarať tak, aby bol doručený včas. Ide o jednoduchú kombináciu dát, ktorú užívatelia poskytnú o sebe na internete (Čada - Hieczko, 2011).
Pred vstupom do online priestoru využitím internetovej stránky alebo stránky na sociálnej sieti je dôležité pre podnik určiť konkrétne ciele a účel ich vytvorenia. Ako ukazovatele úspechu si podniky stanovujú počet získaných priateľov alebo sledovateľov stránky. Podľa autora však nebudú efektívne konkurovať tým, ktorí sledujú predaje a zisky, ktoré dosiahli vďaka kontaktu so zákazníkmi. Podniky by si mali podľa autora stanoviť nasledovné obchodné ciele (Sterne, 2010):

- Zvyšovať výnosy.
- Znižovať náklady.
- Zvyšovať spokojnosť zákazníkov.

Autor presadzuje myšlienku, že uvedené obchodné ciele však musia byť merateľné prostredníctvom príjmov.
Výrobné družstvá v skúmanom súbore využívajú internetovú stránku rôzne v závislosti od veľkosti. Zistené výsledky sme uviedli do tabuľky.

Tabuľka č. 2: Počet výrobných družstiev v skúmanom súbore využívajúcich internetovú stránku

Počet zamestnancov	Využíva	Nevyužíva
0-9 (mikropodnik)	45 %	55 %
10-49 (malý podnik)	77 %	23 %
50-249 (stredný podnik)	100 %	0 %

Zdroj: vlastné spracovanie

Najmenej využívanými sú internetové stránky v mikropodnikoch. So vzrastajúcim počtom zamestnancov sa dochádza aj k zvyšovaniu počtu podnikov, ktoré sa prezentujú prostredníctvom stránky na internete.

Tabuľka č. 3: Počet obchodných spoločností v skúmanom súbore využívajúci internetovú stránku

Počet zamestnancov	Využíva	Nevyužíva
0-9 (mikropodnik)	67 %	33 %
10-49 (malý podnik)	75 %	25 %
50-249 (stredný podnik)	100 %	0 %

Zdroj: vlastné spracovanie

Rovnako ako vo výrobných družstvách, aj v obchodných spoločnostiach pri zväčšujúcom sa počte zamestnancov zvyšuje podiel podnikov využívajúcich internetovú stránku.
Pri zameraní sa na mikropodniky je pri obidvoch kategóriách podnikov najvyšší počet podnikov, ktoré nevyužívajú internetovú stránku. Vyšší podiel v danej kategórii však dosahujú výrobné družstvá. Takmer rovnaké výsledky boli dosiahnuté pri skúmaní veľkostnej kategórie malý podnik. Všetky stredné podniky – výrobné družstvá aj obchodné spoločnosti zo skúmaného súboru využívajú internetovú stránku.

Tabuľka č. 4: Počet výrobných družstiev v skúmanom súbore využívajúcich sociálnu sieť

Počet zamestnancov	Využíva	Nevyužíva
0-9 (mikropodnik)	18 %	82 %
10-49 (malý podnik)	32 %	68 %
50-249 (stredný podnik)	100 %	0 %

Zdroj: vlastné spracovanie

Tabuľka č. 5: Počet obchodných spoločností v skúmanom súbore využívajúcich sociálnu sieť

Počet zamestnancov	Využíva	Nevyužíva
0-9 (mikropodnik)	30 %	70 %
10-49 (malý podnik)	75 %	25 %
50-249 (stredný podnik)	100 %	100 %

Zdroj: vlastné spracovanie

Pri zameraní sa na využívanie vybranej sociálnej siete v obchodných spoločnostiach a družstvách v skúmanom súbore môžeme konštatovať nasledovné. Vyšší podiel využívania sociálnej siete môžeme pozorovať v obchodných spoločnostiach vo veľkostných kategóriách mikropodnik a malý podnik.

Celkovo môžeme konštatovať vyšší podiel využívania vybraných marketingových inovácii – internetovej stránky a stránky na sociálnej sieti. Nízky podiel využívania uvedených inovácii v podnikoch s počtom zamestnancov v intervale 0-9 zo skúmaného súboru, môže byť spôsobený nasledovnými faktormi:

- nedostatočné teoretické znalosti a praktické skúsenosti z oblasti marketingu,
- nedostatok personálnych zdrojov,
- chýbajúce peňažné zdroje určené na marketing,
- neochota a predsudky voči uvedeným marketingovým inováciám.

Domnievame sa, že opatrnosť v uvedenom prípade nie je na mieste. Sociálne siete predstavujú príležitosť na nadviazanie a budovanie vzťahu so stálymi a potenciálnymi zákazníkmi.

5. CONCLUSION AND POLICY IMPLICATIONS

Podiel mikrodružstiev využívajúcich internetovú stránku a sociálnu sieť je menší v porovnaní s obchodnými spoločnosťami. V úvode sme uviedli konkrétne špecifiká, ktoré odlišujú družstvá od obchodnej spoločnosti a neziskovej organizácie. Medzi hlavné myšlienky patrí svojpomoc a jedným z princípov je demokratické riadenie členmi. Domnievame sa, že uvedený princíp môže mať vplyv na nízke využívanie vybraných marketingových inovácii. Skúmaný typ obchodnej spoločnosti je typický menším počtom spoločníkov v porovnaní s počtom členov s výrobným družstvom. Z toho vyplýva aj pružnejšie presadzovanie rozhodnutí o investíciách, napríklad aj do marketingu. S intenzívnejším využívaním uvedených inovácii môže súvisieť hlavný cieľ – dosiahnutie zisku. Podniky sa tak snažia osloviť čo najväčší počet potenciálnych zákazníkov v segmente.

Ako hlavnú bariéru nízkej miery využívania sociálnych sietí a internetových stránok v mikropodnikoch – obchodných spoločnostiach vidíme v nedostatku teoretických znalostí a neochote zavádzať uvedené inovácie do praxe. Jednou z hlavných bariér zavádzania daných inovácii do výrobných družstiev je pomerne široké spektrum členskej základne. Rozdelenie peňažných prostriedkov na marketing je ovplyvnené hlasovaním členskej schôdze. Ďalšími bariérami sú všeobecné bariéry vzťahujúce sa na mikro podniky, resp. nevýhody vyplývajúce z menšej personálnej a kapitálovej vybavenosti.

Nakoľko ide o podniky, ktoré sú členmi konkrétnych organizácii, odporúčame realizovať vzdelávacie aktivity zamerané na uvedenú problematiku a marketingu všeobecne.

Výrobným družstvám a obchodným spoločnostiam v skúmanom súbore by pomohlo vypracovanie marketingového plánu, ktorého obsahom je aj špecifikácia potrieb danej skupiny zákazníkov. Aplikácia jednotlivých prvkov online marketingu by bola účinnejšia, rovnako aj spôsob realizácie.

Acknowledgement
Tento príspevok je čiastkovým výstupom riešenia projektu VEGA MŠ SR 1/0709/15„Zhodnotenie efektívnosti financovania projektov na podporu rozvoja podnikania novozaložených i etablovaných aktívnych malých a stredných podnikov v SR.“ v rozsahu 100 %.

Sources

1. Coop Produkt Slovensko (2017). [online]. Available at < http://www.cpscoop.sk/cps_sk/index.php >.
2. ČADA, J., HECZKO, M. Internet v televizi, nebo televize v internetu? In *Tradiční a nové v marketingové komunikaci*. Zlín: VeRBuM, 2011, 218 s. ISBN 978-80-87500-04-0.
3. ČICHOVSKÝ, L. *Zajímavosti z trendu moderního marketingu.* Louny: Adart, 2012, 296 s. ISBN 978-80-9046452-0.
4. DRUCKER, P. *Management: Tasks, Responsibilities, Practices*. New York: Harper and Row, 1973, 553 s.
5. EGER, L., PRANTL, P., PTÁČKOVÁ, K., *Komerční komunikace*. Plzeň: ZČU, 2017, 145 s., ISBN 978-80-261-0689-0.
6. HALADA, J. a kol. *Marketingová komunikace a public relations*. Praha: Karolinum, 2015. 118 s., ISBN 978-80-246-3075-5.
7. JÁČ, I., RYDVALOVÁ, P., ŽIŽKA, M. *Inovace v malém a středním podnikání*. Brno: Computer Press, 2005. 174 s., ISBN 80-251-0853-8.
8. KARLÍČEK, M., KRÁL, P. *Marketingová komunikace*. Praha: Grada, 2011. 213 s., ISBN 978-80-247-3541-2.
9. KOTLER, P., KELLER, K. L., *Marketing management*. Essex, England: Pearson Education Limited. 2015. 816 s., ISBN 978-1-292-09262-1.
10. Ministerstvo financií Slovenskej republiky (2017). *Register účtovných závierok*. [online]. Available at < http://www.registeruz.sk/cruz-public/home >.
11. NEELOTPAUL, B. A Study of Interactivity and On-line Branding. In *Advaces in Management.* Vol. 3, Issue 3, pp. 13-17, 2010, ISSN 0974-2611.
12. Slovenská asociácia malých podnikov (2017). [online]. Dostupné na < http://samp-msp.sk/ >.
13. STERNE, J. *Social Media Metrics.* New Jersey: Wiley&Sons, 2010. 240 s., ISBN 978-0-470-58374-4.
14. Štatistický úrad SR. (2017). *Ekonomické subjekty podľa právnych foriem*. [online]. [cit. 2017-11-29]. Dostupné na <http://datacube.statistics.sk/#!/view/sk/VBD_SLOVSTAT/og2019qs/Ekonomick%C3%A9%20subjekty%20pod%C4%BEa%20pr%C3%A1vnych%20foriem%20%5Bog2019qs%5D>.
15. TREADAWAY, Ch. – SMITH, M. 2010. *Facebook Marketing: An Hour a Day*. Indianapolis: Wiley Publishing, 2010. 296 s., ISBN 978-0470569641.
16. VEJDĚLEK, J. *Jak založit nebo převzít podnik*. Praha: Grada, 1997, 229 s., ISBN 80-7169-234-4.
17. Zákon č. 513/1991 Z. z., v znení neskorších predpisov

Kontakt
Ing. Adam Bartoš
Ekonomická univerzita v Bratislave
Dolnozemská 1/b, Bratislava, Slovenská republika
Tel. +421267295561
E-mail: adam.bartos@euba.sk

Ing. Monika Jančovičová
Ekonomická univerzita v Bratislave
Dolnozemská cesta 1/b, Bratislava, Slovenská republika
Tel. +421267295561
E-mail: monika.jancovicova@euba.sk

THE IMPACT OF INTERNET MARKETING ON CUSTOMERS

Zuzana Šusterová, Daniela Čekanová, Peter Hanák, Ján Kolesár, Peter Koščák, Dorota Liptáková

Abstract

The article focuses on new internet marketing trends that can be actively used by enterprises providing products and service providers. It briefly describes the possibilities of viral marketing, scient marketing and content marketing in common practice that marketing specialists are increasingly experiencing.

Key words: *marketing, promotion, content marketing, viral marketing, scent marketing, sales*

1 INTRODUCTION

Every business, whether i t´s a production or service enterprise, must use a variety of marketing tools to achieve the objectives. This of course, also applies to airlines – for example, airlines are actively using the most diverse marketing tools to attract passengers as much as they become their customers. In addition to pricing policy, airlines also have many other tools that can attract attention. We can often see a frequent competitive struggle between airlines, which may in some cases be refined and long thought in advance.

Airlines have understood a long time ago that if they want to be successful, they have to search for marketing trends, including internet marketing - the simplest example is viral marketing, which has gained popularity with the massive take-up of social networks, where it´s possible to quickly spread advertising almost for free among users. But it also includes paid advertising or advertisment customization towards what the user is looking for.
The conclusions we reached in this article aren´t only the result of market monitoring and the assumed direction for the future, but also result from our views and a questionnaire in which we briefly received information from 140 respondents on questions about the impact of marketing on purchasing decisions in the field of air transport.

2 SCENT MARKETING

Marketing focused on emotions is not a novelty, it´s basically appearing in advertisements from the very beginning of the first signs of reworked marketing strategies. It gains popularity most of the time, and it´s believed, that interest in strategies related to just the scent of marketing will increase along with the public's interest in social networks and the media. We can navigate through newspaper ads and focus on reading the specific article, but at social networks such as Facebook or Instagram, we are harder to resist, because we can ´t predict what kind of ad will follow when the page is loaded and what the advertisment will look like. While in magazines and newspapers advertisment can only have a printed form (image, text, slogan), an online scient advertisement can be a video or a recording, and that is what catches our attention, whether we want it or not.

In delivering services, as in the case of airlines, effective ads are targeted at the social disadvantage of loneliness - you can fly to your loved ones to stay away from alone during extraordinary days, if you let your dog at home with your friends you will not enjoy your holiday full time, when you take your child with you, not only the holiady will be great, but the flight itself will be an experience. Such signs subtly compel us to think over the feelings of others and cause the need for care.

In scent marketing is very important the frequency of these advertisments and thorough adaptation of the main idea. It's not about viral marketing, but the ad that an individual has to notice to get into subconscious, but without the feeling of pressure. This is also due to a thorough overhaul: no vulgarity, emotional extortion, or inappropriate images of the animals being abused. In a delicate, natural way of the scent marketing the individual begins to think about the purchase, and importantly, he gets the feeling that he has come to that idea by himself, because he does not realize the connection with the ad he has seen until recently.

3 BLOG AS A MARKETING TOOL

Many blogs are full of marketing tools applied to readers. The advantage is that readers don´t even know it - they simply get interesting information by reading. The blog seems as an information resource, something like an Internet magazine, moreover, it is used by ordinary people, which makes it natural and often more trustworthy than other sources. Blog information is part of the discussed topics, giving you the opportunity to express yourself, and therefore the promotion is here less noticeable.

Content marketing also includes blogs. Any business-providing enterprise or business doing basically anything can lead a successful blog, for example, informing about introducing new products, updating information about their activities, asking the general public about it, rewarding engagement, discussing services, and inventing many other activities. Such communication is beneficial for both sides - readers feel that they are entering the process of the business and have a very rare sense of usefulness and on the other hand, the company receives valuable feedback and extremely important information. In the case of air travel, we are able to appeal to newcomers to find an interesting destination in the blogging style, and it´s more than appropriate to consider extending the target group of readers by publishing the texts in multiple blogs in more than one world language.
It is also possible to reach out to several bloggers and publish their themes in different blogs, but there must still be any absence of ad elements - we don´t want to sell directly, we want to inform, we want to get to the large public and improve our market position, which indirectly leads to increasing sales and often automatic viral marketing.

4 VIRAL MARKETING OF SOCIAL NETWORKS

Viral marketing promotes itself. This is a massive sharing of a noticeable ad, article, or slogan. If we want to successfully implement viral marketing in practice for our business, we have to think over interesting slogans, creative videos and anything that might interest the public and nothing like it has been processed.

For example, in the case of airlines, we can record a new, exciting new video presentation where we plan to introduce a new airline about three to four months before ticket sales start - that is enough time to bring a presentation video to the public, to make an audience wanting to share a video and also included the time to plan the flight for the individual potential passengers we were interested in.
For viral marketing, it´s advisable to focus on Twitter and Facebook social networks that allows simple and instant sharing, while the content is addressed to the general public. It is necessary to follow similar marketing activities in competition, to capture common signs for which promotion was successful and devote enough time to develop own manuscripts to the creation of viral advertising. Creation of this strategy and also team of people who work on the uniqueness of the video or slogan can be expensive. The essence is creativity, the idea that will resonate in the ad, the point people want to share with others.

5 CONCLUSION

In practice, we are often confronted with overcoming the types of online marketing. Frequently, the blog post becomes the viral information that people want to share with each other so that the information on the new airline or the new service will expand itself without any more enthusiasm or without more financial investment. Based on previous successful viral videos and texts, we are able to determine the public's interest and adapt to their work, but the public better adopts a specific approach, imaginativeness and new ideas without previous complex analyzes.

Pricing is still a powerful sales tool, and this fact is presumably to remain unchanged for a long time, but along with technologies, marketing tools change. Leaflets, various banners, and TV advertising are still interesting features of marketing, but as a result of our quick survey, Internet advertising and any untraditional form of promotion are far more effective. The only thing left is to think about the possibilities of using the above-mentioned types of marketing, such as for example the impact of colors in promotional materials, the shape of the font, the fragmentation of the blog post, because it just adds to attractiveness.

Sources

1. TOBISOVÁ, A., PAPPOVÁ, E. *Základy ekonomiky leteckej dopravy*. 1. vyd. Košice: TU, 2014. - 147 s. - ISBN 9788055315584.
2. BEGERA, V. *The modular character of airline flight planning.* 2011. - In: Acta Avionica. - ISSN 1335-9479. - Roč. 13, č. 22 (2011), s. 100-106
3. ROZENGERG, R., BEGERA, V., ENDRIZALOVÁ, E. *Zákazník ako zdroj informácií pre leteckú spoločnosť*. 2015. -In: Zvyšovanie bezpečnosti a kvality v civilnom letectve 2015. - Žilina: MADO plus, 2015. - ISBN 978-80-971908-0-4. - S. 81-83 ractiveness.
4. ČEKAN, P., KRALIKOVÁ, B. *The management activities of selected airlines*. - 2012. - In: Acta Avionica. - ISSN 1335-9479. - Roč. 14, č. 24 (2012), s. 486-490
5. ZANTAL-WIENER, A. *6 Viral Video Marketing Examples That Will Never Get Old* – On-line: https://blog.hubspot.com/marketing/viral-video-marketing

Contact

Ing. Zuzana Šusterová
Technical University of Košice
Faculty of Aeronautics
Rampová 7, Košice, Slovakia
Tel: +421 915 602 620
email: zuzana.susterova@tuke.sk

EKONOMIE A PODNIKOVÁ EKONOMIKA

ECONOMY AND BUSINESS ECONOMICS

NUMBER OF PAPERS: 14



COMPARATIVE ANALYSIS OF SELECTED DETERMINANTS OF INNOVATION IN EU COUNTRIES

Katarzyna Brożek

Abstract

Bearing in mind that modern economies are transforming at an incredible rate, and at the same time, permanent sources of development are weakening, innovations, and above all their commercialization, are what the EU countries see as an effective solution to the problem of achieving economic growth. When analyzing selected determinants of innovation, it is impossible to underestimate their role and importance. Consequently, the subject matter is relevant both from theoretical as well as practical point of view. The aim of the article is to deepen the definition and multifaceted examination of the relevance of selected determinants of innovation in EU countries. The essence of the research problem is therefore to examine the relationship between the level of innovation in EU countries and the following factors: GDP, number of applied patents, innovative products, or research and development expenditure. In the light of the theoretical research, the following were analyzed: the essence and definitions of innovation. The scientific effects of the study will be to broaden and consolidate current knowledge in this field, and the practical effects will be based on theoretical findings, even in identifying the most important determinants of innovation development in the EU countries.

Keywords: *Analysis, Innovation, European Union*

1 THEORETICAL APPROACH TO INNOVATION: THE ESSENCE AND DEFINITIONS OF INNOVATION

There are many definitions of the subject in the literature, so it is important to find their common ground.

When analyzing the definitions of innovation, it is worthwhile to present the meaning of the word itself, which is derived from Latin. Innovatio or innovare means novelties or newly introduced things.

In the first years of functioning, the term innovation was seen in the macroeconomic context. It was analyzed how technological development affects the development of the economy. Over time, professionals have shifted away from perceiving innovation in macroeconomic terms, and microeconomic analysis has begun, where technological development has been perceived as a process.

The analysis of the problem of defining innovation is as follows: among foreign authors it is necessary to mention: J. Schumpeter [21], F. Machlup [15], P. Kotler [13], R.W. Griffin [7], S. Jobs [5] , P.R. Whitfield [24], R. Johnston [12], S. Shane [23], P. Drucker [1], [2], Ch. Freeman [4], E. Helpman [9], M.E. Porter [19]. In contrast, among Polish authors taking up this subject, one can distinguish, among others: Z. Pietrasiński [17], W. Grudzewski and I. Hejduk [8], A. Pomykalski [18], Z. Madej [10], A. Jasiński [11] and M. Goławska [6].

The concept of innovation was introduced by the Austrian economist Joseph Schumpeter at the beginning of the 20th century. His definition is the foundation on which the other terms are based, yet it is extremely versatile and current in the present day. The creator based the innovation on the following pillars [26]:

- introduction of new goods that consumers have not yet known or a new product of some kind;

- introducing a new method of production that has not yet been practically tested in the particular industry;
- opening up a new market, i.e. a market where a given type of industry of the relevant country was not previously introduced, regardless of whether the market existed before or not;
- gaining a new source of raw materials or semi-finished products, regardless of whether the source already existed or had to be created;
- Conducting a new organization of an industry, such as creating a monopoly or breaking it [20].

Schumpeter's theory can be summarized as the introduction of new methods. Typically, they were related to technology, but the use of imitation, i.e. the dissemination, implementation and use of new methods, was significant.

In addition to the above condensed presentation of the term innovation is Table 1, which contains the most popular researchers in innovation theory and the keywords that are included in their definitions. It can be seen that the basis of most of the analyzed definitions is "novelty" and "product" - (they occurred seven times), it becomes the main determinant of introducing the innovation in the enterprise. It is also worth noting that among the eleven selected researchers of this problem, much less frequent (because 4 times) the word "service" has appeared, and "improvement" only 3 times. Incidentally, such terms as "good", "idea", "imitation", "failure", "progress" and "commodity" were scattered.

Table 1. Keywords of the term innovation by selected authorities of economic sciences.

Creator	Keywords
J. Schumpeter	novelty, product, commodity, imitation
F. Machlup	rejection of the word innovation
Oslo Mannual	novelty, improvement, product, process
P. Kotler	novelty, good, service, idea, product
R.W. Griffin	development, novelty, product, service, use
S. Jobs	idea, lack of innovation system creation
P.R. Whitfield	workflow, problem resolution, novelty
R. Johnston	product improvement
W. Grudzewski, I. Hejduk	novelty, product, service, distinction from existing forms
Z. Madej	novelty, improvement, failure
Z. Pietrasiński	positive changes in products, services; progress

Source: Own analysis based on the literature of the subject; [14], [16], [22], [25].

2 THE IMPACT OF SELECTED FACTORS ON THE LEVEL OF INNOVATION IN EU COUNTRIES

The impact on the level of innovation can be influenced by factors such as: GDP, number of patents applied, innovative products, or expenditure on research and development. The relationship between these factors is analyzed below. Table 2 shows these aspects on the example of EU Member States in 2012-2014. The highest average number of patents registered in Germany, it was 21.4 thousand and in France 9 thousand, while the lowest in Malta 5.19 and Cyprus 6.16. In Poland, the average for 2012-2014 was approximately 547. In terms of innovative new products for the market, the highest percentage was recorded in Ireland at 22.2 and in Austria at 21.9. The lowest percentage was recorded in Estonia 1.1 and Romania 1.3. Unfortunately, Poland also fell in the group of countries whose index was one of the lowest and amounted to only 5.2%.

Table 2. Selected indicators of product innovation and macro-economic measures for the EU-28 in 2012-2014.

Country	Number of patents applied	Innovative products, new for the market (in %)	Innovative products, new for businesses (in %)	GDP (million euro)	Expenditure on R & D (million euro)
Austria	1912.56	21.9	8.9	323357.93	9652.97
Belgium	1528.65	22	9.8	393339.00	9524.58
Bulgaria	40.36	5.7	5.2	42240.30	286.79
Croatia	17.48	8.2	10.6	43466.20	341.51
Cyprus	6.16	14.9	8	18384.20	83.75
Czech Republic	250.82	13.5	11.6	158611.97	2988.20
Denmark	1351.46	10.7	13.7	259517.73	7714.80
Estonia	25.28	1.1	9.9	18861.10	331.16
Finland	1658.61	20.4	14.2	202868.33	6676.03
France	9000.66	18.5	9.2	2114049.7	47306.08
Germany	21370.77	13.3	21.1	2836143.3	81098.01
Greece	107.93	15	8.4	183266.27	1430.67
Hungary	215.23	7	4.9	101840.73	1367.09
Ireland	324.38	22.2	13.4	183040.47	2822.81
Italy	4289.89	15.5	9.2	1613230.3	21258.88
Latvia	47.15	6.3	2.2	22839.50	149.69
Lithuania	40.70	8.9	12	34980.10	335.87
Luxembourg	64.50	18.4	10.3	46878.13	598.98
Malta	5.19	8.1	11.5	7741.20	59.78
Netherlands	3409.36	19	13.5	653640.00	12842.17
Poland	546.56	5.2	4.3	398359.90	3576.72
Portugal	119.25	14.5	13.9	170582.13	2270.28
Romania	86.21	1.3	2.3	142707.47	592.37
Slovakia	47.14	7.5	5	74273.27	621.91
Slovenia	129.90	17.5	7.7	36417.33	917.85
Spain	1514.71	5.7	5.5	1034139.0	13074.72
Sweden	3234.77	18.4	12.9	430594.63	13969.79
Great Britain	5377.64	10.8	16	2124956.3	35087.50

Source: Own study based on [3].

When analyzing the level of new product innovation for enterprises, it should be noted that the leader in the ranking was Germany at 21.1% and Great Britain at 16%. The lowest recorded countries in this respect were Latvia with 2.2% and Hungary with 4.9%. Poland, as in the case of innovative products new for the market, came in second to last with 4.3%.
Considering the GDP level, the highest values were obtained in countries such as Germany (over € 2.83 trillion) and Great Britain and France, whose values were € 2.12 trillion and € 2.11 trillion, respectively. Table 3 presents the results of the correlation coefficient between GDP and individual innovation indicators.

Table 3. Results of the correlation coefficient between GDP and individual innovation rates in the EU-28 countries in 2012-2014.

Number of registered patents and GDP	**0.88**
Innovative products new for the market (in %) and GDP	**0.15**
Innovative products new for businesses (in %) and GDP	**0.46**

Source: Own calculations based on statistics.

Pearson's correlation coefficient for the relationship between the number of patents applied and the country's GDP was r = 0.88. Correlation is therefore plus / positive, and the relationship is very strong. In the case of the relationship between innovative products new for the market and GDP, r = 0.15, which proves that the correlation is plus / positive and the relationship is very weak. As for the correlation between the innovative product new for enterprises and GDP, it was r = 0.46; which means that it is plus / positive, and the relationship moderately strong. Figure 1 is a supplement to the analysis because the scattering between the examined data is shown.

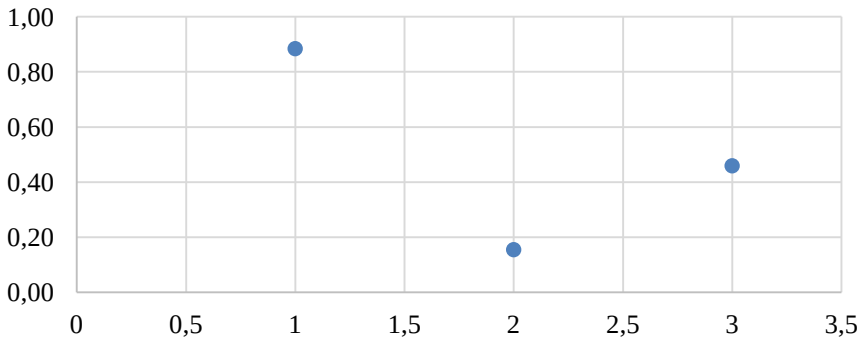


Fig. 1. The relationship between GDP and individual innovation rates in the EU-28 countries in 2012-2014.

In the next stage, further dependencies were investigated, but this time they concerned R & D expenditure. The strength of the relationship between research and development spending and the three selected innovation indicators were also examined. It should be noted that, as in previous analysis, all positive correlation coefficients were obtained, so that in each analyzed case a positive correlation was obtained. The coefficient of the first tested relationship (i.e. between R & D spending and the number of patents applied) was r = 0.98; so the relationship is very strong. The analysis of the relationship between R & D expenditure and the innovative products new for the market was characterized by a correlation coefficient of: r = 0.21, and therefore a very weak relationship. The last tested relationship was between R & D spending and innovative products new for businesses. The correlation coefficient was at the level of r = 0.55, so the relationship between these features is strong. The analysis is detailed in Table 4 and Figure 2, which shows the scattering between the surveyed data.

Table 4. Results of the correlation coefficient between R & D expenditure and individual innovation indicators in EU-28 countries in 2012-2014.

Number of applied patents and R & D spending	**0.98**
Innovative products new for the market and R & D spending	**0.21**
Innovative products new for businesses and R & D spending	**0.55**

Source: Own calculations based on statistics.

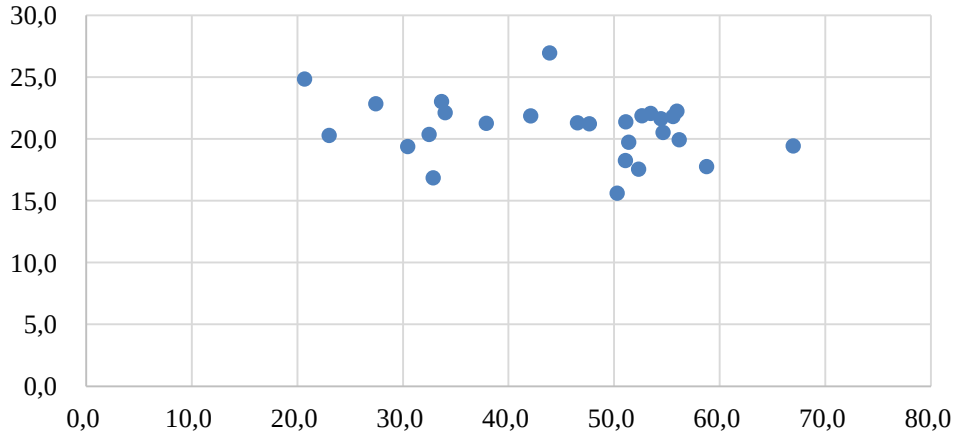


Fig. 2. The relationship between R & D expenditure and individual innovation rates in the EU-28 in 2012-2014

The above analysis suggests that in every case, together with increasing GDP or R & D expenditure, there is an increase in all tested innovation ratios. However, it should be borne in mind that in each case the relationships between the individual elements are strong. In many cases, the development of innovation may be linked to the economic situation of a particular country. Therefore, the economic factor may be significant, but its complement should be, for example, the knowledge and experience of human capital. It can be stated that this idea and the involvement of employees together with adequate financial contribution are the appropriate catalyst for the formation of new products / processes.

SUMMARY AND CONCLUSIONS

Innovations are present in every aspect of life today. They reflect the dynamic changes taking place in the world. One can get the impression that every successive product or every next thought is related to innovation, and consequently the meaning has to some degree been depreciated. This word is often used by marketing agencies, which in the dynamically developing markets are trying to overtake the competition.

Comparative analysis of selected determinants of innovation in EU countries has been started with three indicators of innovation, namely: the number of patents applied, innovative products new for the market and innovative products new for enterprises. The research period was limited to three years (i.e. 2012-2014) and the innovation rates were reported by twenty-eight EU countries. The stated purpose of the discussions was achieved by applying statistical analysis, with particular emphasis on the use of Pearson's correlation coefficient. The study was divided into two phases. The first focused on demonstrating the strength of the relationship between GDP and (separately) the three selected indicators of innovation. On the other hand, the second part of the analysis was to determine the scale of dependence between R & D expenditures and again the three variables mentioned above.

Correlation analysis allowed us to identify the most important innovation determinant of all the surveyed ones. The strongest correlation was with the number of patents applied. For both in the first case, when examining the correlation index between the number of patents and GDP, and in the second case when the number of patents applied and the R & D expenditure were analyzed, correlation coefficients showing a very strong correlation between the tested variables were obtained. There was a positive correlation, so both features grew or diminished in the same direction.

Moderately strong relationship depicted innovative products new for businesses and GDP and R & D expenditure. On the other hand, the lowest correlation coefficient results were obtained when comparing innovative products new for the market and GDP and R & D expenditure. So there was a very weak connection between these features. Therefore, on the basis of the obtained results, it can be stated that the innovative products new for the market are the least important determinants.

The proposed analysis does not exhaust the totality of the examined matter, but it is an indication of the rightness to continue further and extend the research in this field.

Sources

1. DRUCKER, P.F. *Innowacje i przedsiębiorczość. Praktyka i zasady*, Warsaw: PWE, 1992. 36 p. ISBN 83-20808-70-7.
2. DRUCKER, P.F. *Natchnienie i fart czyli innowacja i przedsiębiorczość*, Warsaw: Wydawnictwo Studio Emka, 2004. 39 p. ISBN 83-88931-49-0.
3. EUROSTAT, http://ec.europa.eu, last accessed 2017/04/02.
4. FREEMAN, Ch. *The Economics of Technical Changes*, In: Cambridge Journal of Economics, 1994 vol. 18, 469 p.
5. GALLO, C. *The innovation secret of Steve Jobs*, New York: The McGraw-Hill Companies, 2011. 1-2 pp. ISBN 978-0071748759.
6. GOŁAWSKA, M. *Koncepcja innowacyjności*, In: Marketing i rynek, 2004 No. 11/2004, 39 p.
7. GRIFFIN, R.W. *Podstawy zarządzania organizacjami*, Warsaw: PWN, 2005. 424 p. ISBN 83-01-14394-0.
8. GRUDZEWSKI, W., HEJDUK, I. *Przedsiębiorstwo przyszłości*, Warsaw: Difin, 2000. 138 p.
9. HELPMAN, E. GROSSMAN, G. *Innovation and growth in the global economy*, Cambridge: MIT Press, 1991. 2-4 pp. ISBN 9780262071369.
10. JANASZ, W., KOZIOŁ, K. *Determinanty działalności innowacyjnej przedsiębiorstw*, Warsaw: PWE, 2007. 15 p. ISBN 8320816580.
11. JASIŃSKI, A. *Innowacje i transfer techniki w procesie transformacji*, Warsaw: Difin, 2006. 10 p. ISBN 83-7251-587-5.
12. JOHNSTON, R. *Technical Progress and Innovation*, In: Oxford Press, 1966 No. 18. 158-176 pp.
13. KOTLER, P. *Marketing. Analiza, planowanie, wdrażanie i kontrola*, Warsaw: Gebethner i Ska, 1994. 15-28 pp. ISBN 83-85205-42-X.
14. KUC, B.R., PASZKOWSKI, J. *Organizacja - wartości - zarządzanie*, In: Zarządzanie wartością organizacji, ORECHWA-MALISZEWSKA, E., PASZKOWSKI, J. (eds.), Bialystok: Wydawnictwo Wyższa Szkoła Finansów i Zarządzania w Białymstoku, 2007. 17 p.
15. MACHLUP, F. *The Production and Distribution of Knowledge in the United States*, New Jersey: Princeton, 1962. 167 p. ISBN 9780691003566 2.
16. MARAKOVA, V., DYR, T., WOLAK-TUZIMEK, A. *Factors of Tourism's Competitiveness in the European Union Countries*, In: Ekonomika a management, 2016 XIX, 3. 92-94 pp. DOI: 10.15240/tul/001/2016-3-007.
17. PIETRASIŃSKI, Z. *Ogólne i psychologiczne zagadnienia innowacji*, Warsaw: PWN, 1971. 10 p.
18. POMYKALSKI, A. *Zarządzanie innowacjami*, Warsaw-Lodz: PWN, 2001. 10 p. ISBN 83-01-13480-1.
19. PORTER, M.E. *The Competitive Advantage of Nations*, London: The Macmillan Press Ltd., 1990. 45 p. ISBN 0029253616.

20. SCHUMPETER, J. *Teoria rozwoju gospodarczego*, Warsaw: PWN, 1960. 104 p.
21. SCHUMPETER, J.A. *Business Cycles. A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, New York: McGraw Hill, 1964. 47 p. ISBN 978-1578985562.
22. SCHWAB, K. *The Global Competitiveness Report 2016-2017*, Genewa: World Economic Forum, 2016. 5 p. ISBN 978-1-944835-04-0.
23. SHANE, S. *A General Theory of Entrepreneurship. The Individual-Opportunity Nexus*, UK: Edward Elgar Publishing Limited, 2003. 57 p. ISBN 978-1843769965.
24. WHITFIELD, P.R. *Innowacje w przemyśle*, Warsaw: PWE, 1979. 26 p.
25. WOLAK-TUZIMEK, A., DUDA, J., SOŁOMA, A., LAMENT, M. *Zarządzanie małym i średnim przedsiębiorstwem. Wybrane problemy*, Radom: Naukowo-Wydawniczy Spatium, 2015. 23 p. ISBN 978-83-62805-57-0.
26. WOLAK-TUZIMEK, A. *Innovative Activities of Small and Medium-Sized Enterprises in Poland*, In: The 10th International Days of Statistics and Economics, Prague: Melandrium, 2016. 2057-2058 pp. ISBN 978-80-87990-10-0.

Contact

M.Sc. Katarzyna Brożek, Ph.D. Student
Kazimierz Pulaski University of Technology and Humanities in Radom
Chrobrego 42/10, 26-600 Radom, Poland
Tel: +48 504 174 290
email: k.brozek@uthrad.pl

EMPIRICAL METHODS IN INTERNATIONAL TRADE USING FOR EVALUATION IN LIVE-STOCK INDUSTRY, CASE OF SPECIFIC CHOSEN COMMODITY

Michal Beňo

Abstract

World trade in livestock products is concentrated globally. V4 integration into the World and EU economy is one of the most important developments affecting the structure and evolution of the global system of the 21th century. These countries have grown, driven primarily by the expansion of modern, industrial and export-oriented sector. This case explores what V4 competitiveness of specific commodity means by using four different measures by using the modification of Balassa's and Vollrath's indices: relative export share, relative import share, relative export advantage and relative import advantage. Each measure has a special meaning and use and the concept and measurement of international competitiveness of nations is a useful tool. This analysis shows that V4 countries overall had a strong comparative advantage and competitiveness in selected industry, taking into account six commodities worldwide, in the period from 2004 to 2013.

Keywords: *competitiveness, international trade balance, live-stock industry, comparative advantage*

1 INTRODUCTION

World export has an increasing tendency and becomes more important. The live-stock export industry is a valuable state's industry and supports the live hood of many people. With the development of improved communications of all kinds, recent decades have seen rapid growth of international trade. The expansion of agricultural products has allowed a greater diversity through the world. The trade in live-stock products was largely limited to cross the borders by many exceptions, regulations which were abolished by free trade areas, an example for the first type of this block is the North American Free Trade Agreement (NAFTA) formed in 1994 (NAFTA 2008). In recent years many of regional integration agreements has rapidly increased, and more than 164 agreements have been notified to GATT/WTO (WTO 2017). The developments, e.g. refrigerated transportation since 1800s century in U.S. (Briley 2004), sea- and airfreight, new technologies like mechanization, electrification, internet, automation and data exchange in manufacturing technologies led to the creation of new major trading routes. The aim of this paper is the measurement and comparison of trade balance through the competitiveness and international comparative advantage of V4 countries in the six chosen commodities of live animals, using statistical data from the Food and Agriculture Organisation of the United Nations (FAO) and International Trade Centre from 2004 to 2013. Evidently, the livestock export trade is vital for providing options to producers for competition for their livestock. This is an important contributor to agricultural export earnings and to the economics of the State. It is a necessary component of the State's agricultural sector and contributes annual earnings to the economy offering jobs and significant employment opportunities.

2 METHODOLOGY

The classic theory of comparative advantage generally understood that trade generates gains for both exporting and importing countries. Various methods of quantification of revealed comparative advantages provide the basis for analysis. The first to have published this index

was Balassa in 1965, as follows: $B = (x_{ij} / x_{it}) / (x_{nj}/x_{nt})$, where x means export, i indicates a given country, j is a given product, t represents a group of products and n a group of countries (Balassa 1965). The concept of revealed comparative advantage pertains to the relative trade performance of individual countries in particular commodities (Ballasa 1965, 1977, 1986). The Balassa Index is criticised because it is seen to neglect the different effects of agricultural policies and asymmetric values (Jambor 2013). Vollrath (1991) offered three alternative specifications of revealed comparative advantage, following analyses of international competitiveness in agriculture. The first of these measures is the relative trade advantage (RTA), which accounts for imports as well as exports. It is calculated as the difference between relative export advantage (RXA), which equates to the Balassa Index, and its counterpart, relative import advantage (RMA). RTA = RXA - RMA, where RXA and RMA refer to relative export advantage and relative import advantage (Scott & Vollrath 1992). One way of judging competitiveness is to ask what the trade record reveals about the country's performance. How well does a country export one item, compared with all other goods? We can first work out the formula for Relative Export (RES) and Import Share (RIS), an intermediate step towards Relative Export (REA) and Import Advantage (RIA). The value of the method becomes more apparent when we compare RES or RIS between various commodities. In order to identify whether the V4 countries are more competitive, we determined specific live-stock commodity as cattle, chickens, horses, pigs, sheep and turkeys and used the modified indexes because it was decided as the best procedure for this investigation. In the first step, we defined the Relative Export Share as follows:

$$\text{RES of the V4 country of live animals} = \frac{\frac{\text{V4 country exports of live animals}}{\text{World exports of live animals}}}{\frac{\text{total exports of V4 country}}{\text{World total exports}}} \quad (1)$$

$$\text{RES of the V4 country of commodity} = \frac{\frac{\text{V4 country exports of commodity}}{\text{World exports of commodity}}}{\frac{\text{total exports of V4 country}}{\text{World total exports}}} \quad (2)$$

During the second phase, we determined the Relative Import Share as follows:

$$\text{RIS of the V4 country of live animals} = \frac{\frac{\text{V4 country imports of live animals}}{\text{World imports of live animals}}}{\frac{\text{total imports of V4 country}}{\text{World total imports}}} \quad (3)$$

$$\text{RIS of the V4 country of commodity} = \frac{\frac{\text{V4 country imports of commodity}}{\text{World imports of commodity}}}{\frac{\text{total imports of V4 country}}{\text{World total imports}}} \quad (4)$$

With the completion of these steps, we are now ready to proceed with the Relative Export Advantage which is based on intermediate comparison of market shares of world trade, which we defined in this way:

$$\text{REA of V4 country of live animals} = \frac{\frac{\text{V4 country export share of live animals}}{\text{total exports of V4 country excluding live animals}}}{\frac{\text{World export share of live animals}}{\text{World total export excluding live animals}}} \quad (5)$$

$$\text{REA of V4 country of commodity} = \frac{\frac{\text{V4 country export share of commodities}}{\text{total exports of V4 excluding comodities}}}{\frac{\text{World export share of commodities}}{\text{World total export excluding commodities}}} \quad (6)$$

Relative export advantage makes clear distinctions between a specific commodity and all other commodities, and between a specific country and the rest of the world. The raw indices are converted to natural logarithms.

The last step described the Relative Import Advantage as follows:

$$\text{RIA of V4 country of live animals} = \frac{\frac{\text{V4 country imports share of live animals}}{\text{total imports of V4 excluding live animals}}}{\frac{\text{World imports share of live animals}}{\text{World total imports excluding live animals}}} \quad (7)$$

$$\text{RIA of V4 country of commodity} = \frac{\frac{\text{V4 country imports share of commodity}}{\text{total imports of V4 excluding commodity}}}{\frac{\text{World imports share of commodity}}{\text{World total imports excluding commodity}}} \quad (8)$$

where the raw indices are converted to natural logarithms.

To summarise how well a country's economic sector, such as live animals and the commodities, competes with other economic activities in the international market, both exports and imports by the country in question are accounted for. We defined the Revealed Competitiveness as follows: RC = REA – RIA, where REA refers to the Relative Export Advantage and RIA to the Relative Import Advantage. To arrive at a final index number for Revealed Competitiveness, we subtract the Relative Import Advantage of the sector from its Relative Export Advantage. As in the Relative Export Advantage index, we use natural logarithms to ease comparisons. This adjustment is made because countries have two-way trade in their economic systems.

3 RESULTS

3.1 Relative Export Share of Live Animals and Six Chosen Commodities

The records reveal that from 2004 to 2013, the relative export share of live animals from the Czech Republic was 1.64 times better than the average of all its exports, compared with the world. Hungary's relative export share of live animals was 2.74 times better than the average of all its exports, compared with the world. Poland's results reveal that the relative export share of live animals from the country was 2.09 times better than the average of all its exports, compared to the world. The last country, Slovakia, in that period showed that its relative export share of live animals was 1.93 times better than the average of all its exports, compared with the world. If we examine the single country results over the periods, we can confirm that Poland had a better advantage of the V4 share of exports from 2004 to 2007 and Hungary had the advantage from 2008 to 2013, demonstrated in Table 1, Slovakia is the only country with the possibility of expanding its share of exports, as can be seen from 2008 by the increase.

TABLE 1: Relative Export Share of Live Animals, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CZ	1.49	1.54	1.44	1.47	1.76	1.48	1.52	1.75	1.97	1.98
HU	2.10	2.25	2.06	1.81	2.46	2.79	3.19	3.83	3.69	3.27
PL	3.13	3.32	3.42	2.29	1.81	2.01	1.47	1.24	1.26	0.98
SK	1.11	1.51	1.60	1.24	1.38	1.87	2.27	2.51	2.75	3.01

Source: author's own calculation based on (FAOSTAT 2015), (International Trade in Goods - Exports 2001-2016, 2015).

The value of the method becomes more apparent when we compare relative export shares among various commodities in our case: **cattle, chickens, horses, pigs, sheep and turkeys** as indicated in Figure 1. We see the highest marked share value of the commodity in the period from 2004 to 2013. The first commodity is cattle, where we see the best share in Poland from 2004 to 2007; the next best share belongs to Hungary from 2008 to 2013. For the second commodity, chickens, we realise three different countries in different periods: in 2004 and 2007, it was the Czech Republic, from 2005 to 2006 and 2011 and 2012, Slovakia, and the third country, Hungary, from 2008-2010 and in 2013. For the next commodity, horses, we easily recognise the best export share of Poland. Pigs have the best share in Hungary from 2004 to 2010, and Slovakia from 2011 to 2013. For the sheep commodity, it is plainly Hungary. For the last commodity, turkeys, the best share is in Slovakia from 2004 to 2005, the Czech Republic from 2006 to 2008 and in 2011, with Poland having the best share from 2009 to 2010 and from 2012 to 2013.

FIGURE 1: Relative Export Share of Six Commodities, 2004-2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	Cattle	7.56	10.24	9.98	8.20	8.76	7.46	7.30	7.75	9.63	8.98
	Chickens	**4.10**	3.22	3.65	**4.22**	4.72	3.93	3.74	3.84	3.24	3.37
	Horses	0.05	0.09	0.07	0.04	0.04	0.02	0.02	0.02	0.04	0.02
	Pigs	1.84	1.35	0.99	0.85	0.88	0.45	0.89	1.11	1.19	1.30
	Sheep	0.03	0.02	0.05	0.02	0.02	0.02	0.01	0.02	0.02	0.02
	Turkeys	4.17	5.21	**7.83**	**8.35**	**10.59**	4.84	5.59	**6.44**	8.29	8.09
Hungary	Cattle	6.09	8.18	9.06	8.48	**9.24**	**10.22**	**14.29**	**18.69**	**14.65**	**9.19**
	Chickens	1.89	3.25	3.75	3.44	**4.76**	**4.45**	**3.99**	2.99	3.66	**4.91**
	Horses	0.57	0.35	0.49	0.38	0.36	0.29	0.37	0.27	0.07	0.08
	Pigs	**5.53**	**5.58**	**5.45**	**3.04**	**2.11**	**3.29**	**5.20**	2.82	3.08	2.69
	Sheep	**11.10**	**10.40**	**9.09**	**6.90**	**7.01**	**6.38**	**6.20**	**6.50**	**6.62**	**5.26**
	Turkeys	0.36	0.82	0.67	0.36	0.53	2.49	0.65	1.71	1.29	0.72
Poland	Cattle	**23.77**	**25.76**	**25.34**	**13.98**	8.81	9.32	6.82	5.68	5.41	3.22
	Chickens	1.27	1.71	1.88	1.49	1.21	1.37	1.08	1.05	1.34	1.46
	Horses	**3.10**	**2.53**	**2.20**	**1.78**	**1.56**	**1.55**	**1.46**	**1.46**	**1.31**	**0.99**
	Pigs	1.00	1.69	3.57	2.31	1.87	1.87	1.26	0.65	0.71	0.50
	Sheep	0.72	0.86	0.70	0.63	0.51	0.43	0.35	0.35	0.29	0.24
	Turkeys	3.21	2.78	2.85	1.81	3.34	**5.67**	**5.88**	5.98	**9.28**	**10.99**
Slovakia	Cattle	9.10	8.16	9.02	5.62	6.60	8.09	9.02	6.86	8.25	6.97
	Chickens	1.38	**5.76**	**4.23**	2.43	3.39	4.24	3.94	**4.52**	**5.28**	4.35
	Horses	0.03	0.03	0.14	0.06	0.23	0.32	0.02	0.01	0.02	0.01
	Pigs	0.05	0.80	1.80	2.21	1.01	1.45	3.44	**4.86**	**4.79**	**6.51**
	Sheep	0.69	0.47	0.52	0.27	0.33	0.30	0.24	0.29	0.34	0.27
	Turkeys	**5.81**	**5.72**	5.49	0.30	3.87	2.55	2.31	1.75	1.73	3.94

Source: author's own calculation based on (FAOSTAT 2015), (International Trade in Goods - Exports 2001-2016, 2015).

3.2 Relative Import Share of Live Animals and Six Chosen Commodities

The records show that, in the chosen period, the Czech Republic imported more live animals of all its imports than the rest of the V4 countries, compared with the world. The Czech Republic had 1.64 times more than the average, Hungary 1.42 and Poland 1.47 times more imported live animals. Only the Slovak Republic imported less than 1.10 times. If we examine single country results over the periods, we confirm that Poland had the advantage of the V4 import share from 2007 to 2009 and from 2012 to 2013, and Hungary from 2004 to 2006 and from 2010 to 2011, as shown in Table 2.

TABLE 2: Relative Import Share of Live Animals, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RIS CZ	0.38	0.45	0.41	0.33	0.52	0.52	0.58	0.55	0.92	1.00
RIS HU	1.38	1.43	1.45	0.83	0.71	1.08	2.01	1.77	2.04	1.53
RIS PL	0.84	0.98	0.73	0.84	1.06	1.49	1.29	1.60	2.54	3.32

RIS SK	0.85	1.00	0.86	0.66	1.01	0.99	1.13	1.09	1.68	1.76

Source: author's own calculation based on (FAOSTAT 2015), (International trade in goods - imports 2001-2016, 2015).

The value of the method becomes more apparent when we compare relative import shares between various commodities as highlited in Figure 2. We see the highest bold marked share value of the commodity in the period from 2004 to 2013. The first commodity is cattle, where we see the highest import share in Poland from 2004 to 2007; after that the next highest import share belongs Slovakia from 2008 to 2009 and Hungary from 2010 to 2013. For the second commodity, chickens, we easily realise the highest import share for Slovakia, except in 2004, which refers to Poland. For the next commodity, horses, we easily recognise the highest import share for Poland, except in 2009 for the Czech Republic and, in 2011, for the Slovak Republic. The highest pig share goes to Hungary from 2004 to 2007 and in 2010, and Poland from 2008 to 2009 and 2011 to 2013. For the sheep commodity, Hungary is plainly shown as the best. The last commodity, turkeys, shows us that Poland had the highest import share for the whole period.

FIGURE 2: Relative Import Share of Six Commodities, 2004-2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	Cattle	0.48	0.42	0.25	0.41	0.38	0.28	0.16	0.13	0.18	0.15
	Chickens	1.28	2.49	2.22	1.32	1.49	1.73	1.59	1.46	1.67	1.68
	Horses	0.14	0.11	0.10	0.09	0.10	**0.10**	0.02	0.04	0.03	0.01
	Pigs	0.09	0.46	0.56	0.62	1.29	1.85	1.86	1.75	2.39	1.60
	Sheep	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Turkeys	3.11	2.85	2.14	1.00	2.07	1.10	1.35	1.05	1.16	1.39
Hungary	Cattle	0.67	1.05	0.79	0.72	0.23	0.29	**4.37**	**6.74**	**7.65**	**4.49**
	Chickens	1.20	1.28	0.41	0.35	0.74	0.41	1.44	1.69	2.71	1.92
	Horses	0.02	0.02	0.03	0.00	0.00	0.00	0.01	0.01	0.00	0.01
	Pigs	**5.32**	**5.53**	**5.33**	**3.16**	2.30	3.83	**5.99**	3.24	3.45	3.05
	Sheep	**1.13**	**0.78**	**2.91**	**0.59**	**0.70**	**0.59**	**0.52**	**0.55**	**0.48**	**0.42**
	Turkeys	1.69	1.64	1.81	1.83	2.64	4.00	3.65	3.64	6.11	4.63
Poland	Cattle	**2.17**	**2.47**	**1.70**	**1.44**	0.78	0.55	0.94	1.00	1.56	2.29
	Chickens	**2.00**	2.22	2.45	2.15	1.76	2.03	2.47	2.53	2.70	3.09
	Horses	**0.26**	**0.12**	**0.12**	**0.20**	**0.18**	0.04	**0.09**	0.09	**0.21**	**0.25**
	Pigs	1.07	1.66	0.79	0.90	**2.47**	**4.41**	3.63	**4.70**	**8.63**	**11.06**
	Sheep	0.61	0.70	0.58	0.55	0.43	0.43	0.34	0.32	0.28	0.24
	Turkeys	**10.72**	**13.98**	**15.21**	**16.28**	**13.38**	**10.41**	**9.46**	**11.81**	**10.38**	**11.93**
Slovakia	Cattle	0.04	0.02	0.33	0.37	**0.88**	**0.62**	1.89	1.32	1.79	1.75
	Chickens	1.26	**5.14**	**3.95**	**2.25**	**3.24**	**4.42**	**4.01**	**4.72**	**5.58**	**4.67**
	Horses	0.01	0.02	0.06	0.08	0.16	0.05	0.08	**0.16**	0.12	0.02
	Pigs	1.22	2.79	2.55	1.69	2.00	2.03	2.62	2.43	4.78	5.40
	Sheep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	Turkeys	1.12	1.47	1.60	0.28	1.65	0.77	1.15	0.96	0.66	0.95

Source: author's own calculation based on (FAOSTAT 2015), (International trade in goods - imports 2001-2016, 2015).

3.3 Relative Export and Import Advantage of Live Animals and Six Chosen Commodities

By examining Tables 3 and 4, Figure 3 and 4, the same results as for the RES and RIS data, which were previously examined, can be confirmed. However, the difference in this calculation is that the raw indices are converted to natural logarithms as we implement the principle of export and import advantage mentioned in the methodology. A positive value of REA and RIA is interpreted as an indication of a country's export or import advantage versus the rival – the world.

TABLE 3: Relative Export Advantage of Live Animals, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
REA CZ	0.58	0.61	0.52	0.52	0.69	0.55	0.56	0.69	0.82	0.83

REA HU	0.74	0.81	0.72	0.59	0.90	1.03	1.16	1.35	1.31	1.19
REA PL	1.14	1.20	1.23	0.83	0.59	0.70	0.38	0.22	0.23	-0.02
REA SK	0.11	0.41	0.47	0.22	0.32	0.63	0.82	0.92	1.01	1.10

Source: author's own calculation based on (FAOSTAT, 2015), (International Trade in Goods - Exports 2001-2016, 2015).

Green marked fields indicate comparative advantage of V4 country in the commodity category versus the world.

FIGURE 3: Relative Export Advantage of Six Commodities, 2004-2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	Cattle	0.53	0.79	0.63	0.58	0.80	0.75	0.77	0.77	0.95	0.96
	Chickens	**1.41**	1.17	1.30	**1.44**	1.55	1.37	1.32	1.35	1.18	1.22
	Horses	-3.04	-2.46	-2.66	-3.30	-3.11	-3.94	-3.82	-3.73	-3.28	-4.06
	Pigs	0.61	0.30	-0.01	-0.16	-0.13	-0.80	-0.12	0.11	0.17	0.26
	Sheep	-3.40	-3.83	-2.93	-3.98	-4.11	-4.11	-4.45	-3.90	-3.82	-3.75
	Turkeys	1.43	1.65	**2.06**	**2.12**	**2.36**	1.58	1.72	**1.86**	2.11	2.09
Hungary	Cattle	0.31	0.57	0.53	0.61	**0.85**	**1.07**	**1.32**	**1.66**	**1.37**	**0.98**
	Chickens	0.64	1.18	1.32	1.24	**1.56**	**1.49**	**1.38**	1.09	1.30	**1.59**
	Horses	-0.56	-1.06	-0.71	-0.97	-1.03	-1.22	-0.99	-1.31	-2.67	-2.51
	Pigs	**1.71**	**1.72**	**1.70**	**1.11**	**0.75**	**1.19**	**1.65**	1.04	1.13	0.99
	Sheep	**2.41**	**2.34**	**2.21**	**1.93**	**1.95**	**1.85**	**1.83**	**1.87**	**1.89**	**1.66**
	Turkeys	-1.01	-0.20	-0.40	-1.02	-0.63	0.91	-0.43	0.53	0.25	-0.33
Poland	Cattle	**1.68**	**1.71**	**1.56**	**1.11**	0.81	0.97	0.58	0.46	0.37	-0.07
	Chickens	0.24	0.54	0.63	0.40	0.19	0.31	0.07	0.05	0.29	0.38
	Horses	**1.13**	**0.93**	**0.79**	**0.58**	**0.44**	**0.44**	**0.38**	**0.38**	**0.27**	-0.01
	Pigs	0.00	0.52	1.27	0.84	0.63	0.62	0.23	-0.42	-0.34	-0.70
	Sheep	-0.33	-0.15	-0.36	-0.47	-0.67	-0.84	-1.04	-1.04	-1.23	-1.42
	Turkeys	1.17	1.02	1.05	0.59	1.21	**1.74**	**1.77**	1.79	**2.23.**	**2.40**
Slovakia	Cattle	0.71	0.56	0.52	0.20	0.52	0.83	0.86	0.65	0.80	0.70
	Chickens	0.32	**1.75**	**1.44**	0.89	1.22	1.45	1.37	**1.51**	**1.66**	1.47
	Horses	-3.38	-3.50	-1.97	-2.74	-1.47	-1.13	-3.75	-4.27	-3.76	-4.70
	Pigs	-2.93	-0.22	0.59	0.79	0.01	0.37	1.23	**1.58**	**1.57**	**1.88**
	Sheep	-0.37	-0.76	-0.66	-1.33	-1.10	-1.21	-1.43	-1.24	-1.08	-1.30
	Turkeys	**1.76**	**1.74**	1.70	-1.19	1.35	0.94	0.84	0.56	0.55	1.37

Source: author's own calculation based on (FAOSTAT 2015), (International Trade in Goods - Exports 2001-2016, 2015).

TABLE 4: Relative Import Advantage of Live Animals, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RIA CZ	-0.98	-0.80	-0.88	-1.10	-0.66	-0.65	-0.55	-0.59	-0.08	0.00
RIA HU	0.32	0.36	0.37	-0.18	-0.34	0.08	0.70	0.57	0.71	0.42
RIA PL	-0.17	-0.02	-0.32	-0.18	0.06	0.40	0.25	0.47	0.94	1.20
RIA SK	-0.16	0.00	-0.15	-0.42	0.01	-0.01	0.12	0.08	0.52	0.56

Source: author's own calculation based on (FAOSTAT 2015), (International trade in goods - imports 2001-2016, 2015).

Green marked fields indicate comparative advantage of V4 country in the commodity category versus the world.

FIGURE 4: Relative Import Advantage of Six Commodities, 2004-2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	Cattle	-2.05	-2.25	-2.95	-2.28	-2.27	-2.54	-3.27	-3.40	-3.09	-3.27
	Chickens	0.24	0.91	0.80	0.28	0.40	0.55	0.47	0.38	0.51	0.52
	Horses	-1.98	-2.20	-2.30	-2.37	-2.27	**-2.31**	-3.96	-3.32	-3.57	-4.24
	Pigs	-2.39	-0.78	-0.57	-0.48	0.26	0.62	0.62	0.56	0.87	0.47
	Sheep	-5.10	0.00	0.00	-6.06	-9.20	-7.55	-6.89	-7.24	0.00	-6.54
	Turkeys	1.13	1.05	0.76	0.00	0.73	0.10	0.30	0.05	0.15	0.33
Hungary	Cattle	-1.72	-1.33	-1.81	-1.71	-2.80	-2.53	**0.06**	**0.57**	**0.64**	**0.16**
	Chickens	0.18	0.25	-0.90	-1.04	-0.29	-0.89	0.36	0.52	1.00	0.65
	Horses	-4.06	-3.83	-3.64	0.00	0.00	-5.81	-5.07	-4.36	-5.98	-4.43
	Pigs	**1.67**	**1.71**	**1.67**	**1.15**	0.83	1.34	**1.79**	1.18	1.24	1.12
	Sheep	**0.12**	0.00	0.00	**-0.52**	**-0.36**	**-0.53**	**-0.65**	**-0.59**	0.00	**-0.87**
	Turkeys	0.52	0.50	0.59	0.60	0.97	1.39	1.29	1.29	1.81	.153
Poland	Cattle	**-0.55**	**-0.48**	**-1.05**	**-1.02**	-1.56	-1.88	-1.48	-1.34	-0.95	-0.51
	Chickens	**0.69**	0.80	0.90	0.76	0.56	0.71	0.91	0.93	0.99	1.13
	Horses	**-1.35**	**-2.10**	**-2.11**	**-1.60**	**-1.71**	-3.12	**-2.41**	-2.41	**-1.56**	**-1.37**
	Pigs	0.06	0.51	-0.24	-0.11	**0.90**	1.49	1.29	**1.55**	**2.16**	2.41
	Sheep	-0.49	0.00	0.00	-0.59	-0.85	-0.85	-1.09	-1.13	0.00	-1.41
	Turkeys	**2.37**	**2.64**	**2.72**	**2.79**	**2.59**	**2.34**	**2.25**	**2.47**	**2.34**	**2.48**
Slovakia	Cattle	-4.50	-5.23	-2.67	-2.37	**-1.44**	**-1.75**	-0.78	-1.06	-0.81	-0.78
	Chickens	0.23	**1.64**	**1.37**	**0.81**	**1.18**	**1.49**	**1.39**	**1.55**	**1.72**	**1.54**
	Horses	-5.24	-3.76	-2.86	-2.50	-1.84	-3.03	-2.57	**-1.86**	-2.16	-4.13
	Pigs	0.20	1.03	0.94	0.52	0.69	0.71	0.96	0.89	1.57	1.69
	Sheep	-5.36	0.00	0.00	-8.43	-7.43	0.00	-7.24	-8.07	0.00	-7.48
	Turkeys	0.11	0.39	0.47	-1.26	0.50	-0.26	0.14	-0.04	-0.42	-0.05

Source: author's own calculation based on (FAOSTAT 2015), (International trade in goods - imports 2001-2016, 2015).

3.4 Revealed Competitiveness of Live Animals and Six Chosen Commodities

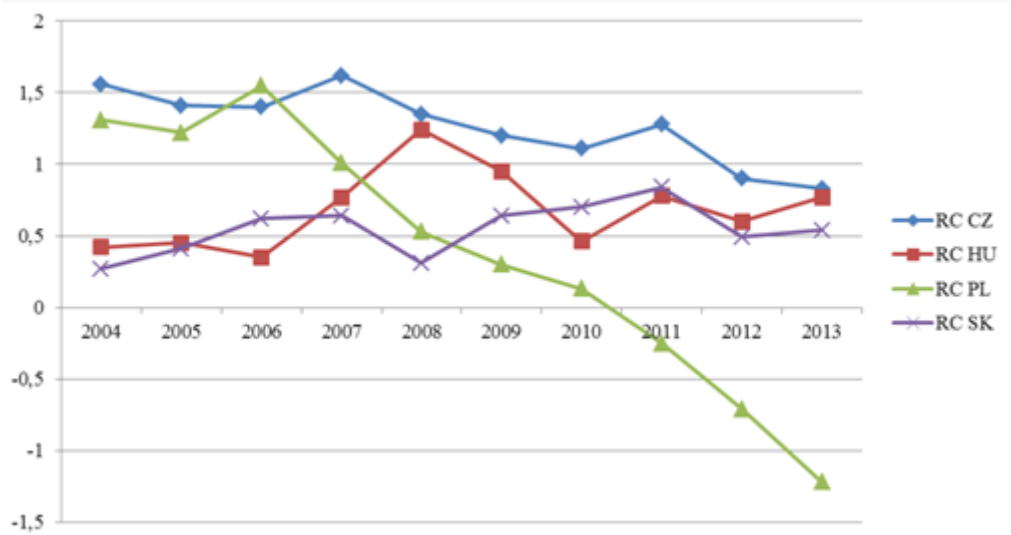
Revealed Competitiveness is a remarkable measure when trying to gauge a country's overall live animals and its commodities. To arrive at a final index number for revealed competitiveness, we subtract the Relative Export Advantage of the sector from its Relative Import Advantage, using natural logarithms to ease comparisons. In this section, we describe the Revealed Competitiveness of V4 countries of live animals versus the world trade market. We implement the principle of Relative Competitiveness as mentioned already, where a positive value of RC is interpreted as the indication of V4 comparative advantage versus the world. Table 5 shows RC is the highest index in the Czech Republic from 2004 to 2005 and from 2007 to 2013, and in Poland in 2006. Figure 5 better demonstrates the declines of Poland's competitiveness, which is seen as a danger for future growth. On the contrary, very good prospects and tendencies are shown by Hungary and Slovakia, with potential growth. The Czech Republic shows a decreasing trend.

TABLE 5: Revealed Competitiveness of Live Animals, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RC CZ	1.56	1.41	1.40	1.62	1.35	1.20	1.11	1.28	0.90	0.83
RC HU	0.42	0.45	0.35	0.77	1.24	0.95	0.46	0.78	0.60	0.77
RC PL	1.31	1.22	1.55	1.01	0.53	0.30	0.13	-0.25	-0.71	-1.22
RC SK	0.27	0.41	0.62	0.64	0.31	0.64	0.70	0.84	0.49	0.54

Source: author's own calculation.

FIGURE 5: Revealed Competitiveness of Live Animals, 2004-2013



Source: author's own calculation.

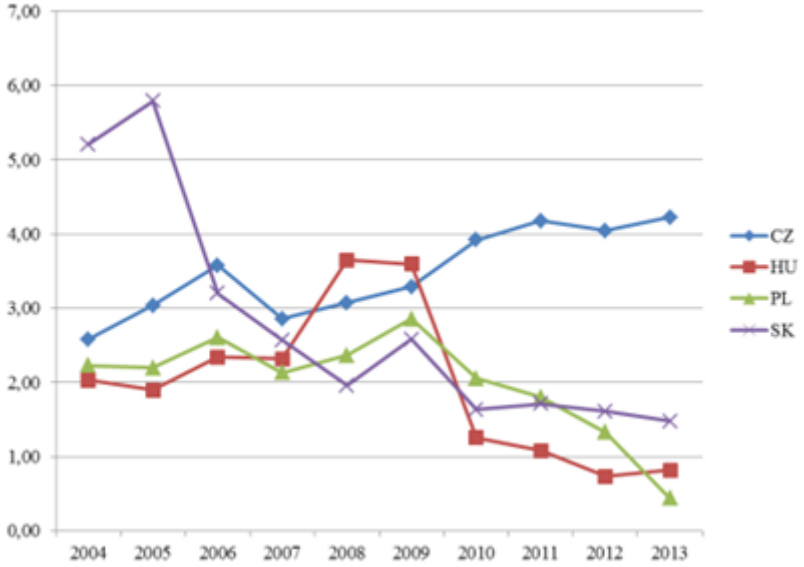
Figure 6 shows a better overview by commodity of the competitiveness of live animals and the advantages on the world market. The first group focused on is Cattle. Slovakia had a big advantage from 2004 and 2005, with a descending trend thereafter. The Czech Republic showed great potential in this commodity from the beginning of 2006 to 2007 and continued to rise from 2010 to 2013. In Hungary, the highest peak is observed from 2008 to 2009, with a downward trend. Poland can be seen as the loser. See Figure 7 for more detailed results. In the Chicken section, the winner is definitely Hungary, except for the years 2004, 2011 and 2012, where there was stagnation. This was followed by the Czech Republic with the highest peak in 2004, 2011 and 2012. Poland and the Slovak Republic are the losers.

FIGURE 6: Revealed Competitiveness of Six Commodities, 2004-2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	Cattle	2.58	3.04	**3.58**	**2.86**	3.07	3.29	**3.92**	**4.18**	**4.04**	**4.23**
	Chickens	**1.17**	0.26	0.50	1.16	1.16	0.82	0.85	**0.97**	**0.66**	0.70
	Horses	-1.06	-0.26	-0.36	-0.93	-0.84	-1.63	0.14	-0.41	0.29	0.18
	Pigs	**3.00**	**1.08**	0.56	0.32	-0.38	-1.42	-0.74	-0.45	-0.70	-0.21
	Sheep	1.70	-3.83	-2.93	2.08	5.10	**3.44**	2.45	3.34	-3.82	2.79
	Turkeys	0.29	0.60	**1.30**	**2.13**	**1.63**	**1.48**	**1.42**	**1.81**	**1.97**	**1.76**
Hungary	Cattle	2.03	1.90	2.34	2.32	**3.65**	**3.60**	1.26	1.09	0.73	0.82
	Chickens	0.45	**0.93**	**2.22**	**2.27**	**1.85**	**2.38**	**1.02**	0.57	0.30	**0.94**
	Horses	**3.50**	2.77	**2.93**	-0.97	-1.03	**4.58**	**4.08**	**3.05**	**3.32**	**1.92**
	Pigs	0.04	0.01	0.02	-0.04	-0.09	-0.15	-0.14	-0.14	-0.11	-0.13
	Sheep	2.28	**2.34**	**2.21**	2.45	2.31	2.38	2.47	2.47	**1.89**	2.53
	Turkeys	-1.53	-0.70	-0.99	-1.63	-1.60	-0.47	-1.72	-0.76	-1.56	-1.87
Poland	Cattle	2.23	2.20	2.61	2.13	2.37	2.86	2.05	1.80	1.33	0.44
	Chickens	-0.45	-0.26	-0.26	-0.36	-0.37	-0.39	-0.83	-0.87	-0.70	-0.75
	Horses	2.48	**3.03**	2.90	**2.18**	**2.15**	3.56	2.78	2.78	1.83	1.35
	Pigs	-0.07	0.02	**1.51**	**0.94**	-0.28	-0.86	-1.06	-1.97	-2.50	-3.11
	Sheep	0.17	-0.15	-0.36	0.13	0.18	0.01	0.05	0.09	-1.23	-0.01
	Turkeys	-1.21	-1.61	-1.68	-2.20	-1.39	-0.61	-0.47	-0.68	-0.11	-0.08
Slovakia	Cattle	**5.21**	**5.79**	3.20	2.57	1.96	2.58	1.63	1.71	1.61	1.48
	Chickens	0.09	0.12	0.07	0.07	0.05	-0.04	-0.02	-0.04	-0.06	-0.07
	Horses	1.87	0.26	0.89	-0.24	0.37	1.89	-1.18	-2.41	-1.60	-0.57
	Pigs	-3.13	-1.25	-0.35	0.27	-0.69	-0.33	**0.27**	**0.69**	**0.00**	**0.19**
	Sheep	**5.00**	-0.76	-0.66	**7.10**	**6.34**	-1.21	**5.80**	**6.82**	-1.08	**6.19**
	Turkeys	**1.65**	**1.36**	1.24	0.06	0.85	1.20	0.70	0.60	0.97	1.42

Source: author's own calculation.

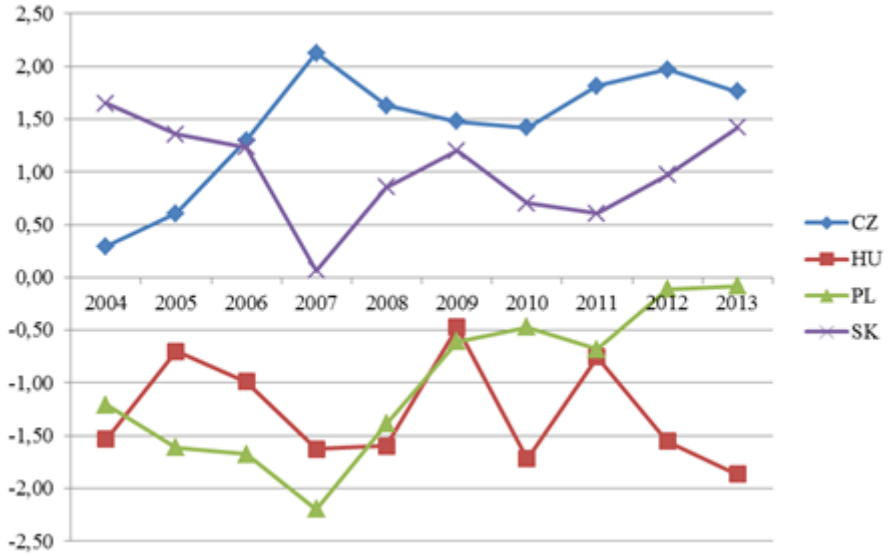
FIGURE 7: Revealed Competitiveness of Cattle, 2004-2013



Source: author's own calculation.

The next commodity is Horses, where it can be demonstrated that Hungary in 2004, 2006 and from 2009 to 2013, and Poland in 2005, 2007 and 2008, had better competitiveness than Slovakia and the Czech Republic. Slovakia lost the competing index in this area. In the next commodity, Poland lost its position in 2006 and 2007. From 2008, with a decreasing trend, the same tendency can be shown in the Czech Republic, after the highest index in 2004 and 2005. Slovakia allocated the best potential impulse in this section up to 2010 and until 2013. Hungary remained steady. The Sheep sector belongs to Slovakia, which is of course very remarkably for this country, with an upward and downward trend, except in 2005 and 2006 which belongs to Hungary, 2009 to the Czech Republic and 2012 again to Hungary. Here we measured the highest index of those six commodities of this V4 country. The last group is Turkeys, where two sides are revealed: the Czech Republic with a smooth trend from 2006, and Slovakia with the highest peak in 2004 and 2005 on the winning side, with Hungary and Poland on the losing side with a falling trend as shown in Figure 8.

FIGURE 8: Revealed Competitiveness of Turkeys, 2004-2013



Source: author's own calculation.

4 DISCUSSION AND CONCLUSION

We propose further research investigations, with a comparison of the top exporting countries of live animals: U.S, Canada, Mexico, Australia, India, Argentina and Brazil. Research of these countries is very rare, as none of them is an EU member and has raised many questions in need of future examination for validating by a larger sample size. Furthermore, there should be a focus on the V4 country's neighbours. All of these reveal more and less successful performances at the industry-region level. We think that this would improve the understanding of the regional aspect of competitiveness, as a future point of view on the economic development of a region.

It is evident that livestock production is the world's largest user of land, either directly through grazing or indirectly through the consumption of fodder and feed grains. The world food economy is being increasingly driven by the shift of diets towards animal-based products such meat, milk and dairy and as a result, agriculture is being affected, not only through growth of livestock production, but also through linkages to other sectors (Gennari 2015). Globally, livestock production currently accounts for some 40 % of the gross value of agricultural production and in industrial countries this share is more than one half. The total demand for animal products in developing countries is expected to more than double by 2030. By contrast, the demand for animal products in the industrial world has been increasing at low rates, and livestock production in this group of countries is expected to grow only slowly over the projection period (Bruinsma 2003). We have presented an analysis of the V4 countries' Revealed Comparative Advantage and Competitiveness by using indices of export and import shares and Export and Import Advantage and Revealed Competitiveness for the period 2004 to 2013. The results need to be interpreted with care; the indices are less satisfactory as cardinal measures, but are useful in identifying whether or not V4 has a comparative advantage or not in live animals (six chosen commodities) versus the world market. The evidence from this study suggests that small countries could also conquer the chosen sector versus the large world market. We have obtained satisfactory results demonstrating that the Czech Republic, Slovakia and Hungary have a very good competitive advantage and competitiveness in cattle, Hungary and the Czech Republic in the group of chickens. Hungary and Poland are specialised in horses, Slovakia and the Czech Republic in pigs. The sheep commodity easily belongs to Slovakia, with Hungary and the Czech Republic partly belonging to this group. The last sector (turkeys) belongs to the Czech Republic and Slovakia. Increasing population, urbanisation and higher incomes are fuelling the strong demand for animal food products. This will have a major impact on the location and organisation of livestock production. Late or wrong changes can significantly influence animal and human health and the environment. The future holds both opportunities and serious decisions. For this reason, we see a demand for change in the V4 countries from industry to a return to agriculture and livestock production as it was before the fall of the Iron Curtain in 1989. However, without proactive development policies, safety and security, environmental protection and poverty reduction will not be possible.

Sources

1. BALASSA, B. 1965. Trade Liberalisation and "Revealed" Comparative Advantage. The Manchester School 33, 99–123. doi:10.1111/j.1467-9957.1965.tb00050.x
2. BALASSA, Bela. 1977 'Revealed' Comparative Advantage Revisited: An Analysis of Relative Export Shares of the Industrial Countries, 1953-1971,The Manchester School of Economic & Social Studies, 1977, vol. 45, issue 4, pp. 327-44.
3. BALASSA Bela .1986. Comparative Advantage in Manufactured Goods: A Reappraisal, The Review of Economics and Statistics, Vol. 68, No. 2, pp. 315-319.
4. BRILEY, G.C. *A history of refrigeration*. ASHRAE Journal 46, 2004. p. 31.

5. BRUINSMA, J.: Food and Agriculture Organization of the United Nations (Eds.), 2003. World agriculture: towards 2015/2030: an FAO perspective. Earthscan Publications, London.
6. FAOSTAT. 2015. Available at: http://faostat3.fao.org/download/T/TA/E (Accessed: 20 February 2017).
7. GENNARI; P. 2015: *FAO Statistical Pocketbook 2015*. Available at: http://www.fao.org/3/a-i4691e.pdf (Accessed: 20 February 2017).
8. *International trade in goods - exports 2001-2016.* 2015. Available at: http://www.intracen.org/itc/market-info-tools/statistics-export-country-product/ (Accessed: 20 February 2017).
9. *International trade in goods - imports 2001-2016*. 2015. Available at: http://www.intracen.org/itc/market-info-tools/statistics-import-country-product/ (Accessed: 20 February 2017).
10. JAMBOR, A. 2013: Comparative advantages and Specialisation of the Visegrad countries Agri-Food trade, *Review of Agricultural and Applied Economics*, 16(01), pp. 22–34. doi: 10.15414/raae.2013.16.01.22-34.
11. NAFTA. 2008. *North American free trade agreement*. Available at: http://www.naftanow.org/about/default_en.asp (Accessed: 20 February 2017).
12. SCOTT, L. and VOLLRATH, T. 1992: *Global Competetive Advantages and Overall Bilateral Complementarity in Agriculture*. Available at: http://ageconsearch.umn.edu/bitstream/154792/2/sb850.pdf (Accessed: 20 February 2017).
13. VOLLRATH, T. L. 1991. A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage. In Weltwirtschaftliches Archiv, vol. 130, 1991, no. 2, 265–279.
14. *What is the WTO? - who we are.* 2017. Available at: https://www.wto.org/english/thewto_e/whatis_e/who_we_are_e.htm (Accessed: 20 February 2017).

Contact

Mgr. Bc. Michal Beňo
Hauptplatz 2, Großweikersdorf, 3701, Austria
Tel: +43 664 247 6781
email: m.beno@tyrolia.com

EMISSION ALLOWANCES, A BASIC ECONOMIC TOOL FOR AIR PROTECTION

LadislavRozenský, Miroslav Hájek, Jan Lípa, Petr Hukal, Francisco Dupas, Fernanda Luz

Abstract

The European Union is the world leader in the field of environmental protection. Air protection is an important part of it and has also become part of EU law. Air Protection Tools form a comprehensive system and its very important component is the economic instruments of air protection. These economic instruments are used by EU Member States in mix of different elements, which are elected according to the national environmental protection policy. An essential element of this mix is the EU-wide ETS, a common emission allowance market, across the EU. In developed countries of the world, for which environmental problems are a priority, there are a whole range of allowance trading systems combined with other air protection instruments. Some Member States also use a carbon tax as a complement to the EU ETS, which helps them to cover small emissions producers and carriers as well. Market innovation and the uniform introduction of carbon tax into all Member States are a way of unifying environmental policy and improving air quality in the EU. The Czech Republic uses emission allowances in particular as a basic economic tool to reduce CO2 emissions. This instrument, along with excise duty on energy products and fuel, is a mandatory measure resulting from the EU's common environmental policy.

Keywords: *Market, emission allowances, Environmental policy, Economic instruments, Carbon dioxide*

1. Introduction

The idea of setting limits and trading in pollution allowances was developed by the economist in the 1960s. (Barnes, 2008a: 31) The system establishes a maximum allowable pollution limit that is transformed into allowances. Permits consist of the right to issue a certain amount of pollutant, then distributed or sold to designated economic entities, and in the context of reciprocal transactions between economic operators, reallocation may take place on a market principle. In general, anyone who emits pollution must surrender the appropriate amount of allowances that allow it, or pay a sum of money that corresponds to their value. (Barnes, 2008a, Daly, 1996). According to Peter Barnes (2008a: 28), this system, if it sets a gradually decreasing carbon limit and includes the entire economy, is the best way to guarantee a drop in carbon to a certain date. Barnes (2008a: 31) The EU Emissions Trading System (EU ETS) was launched on 1 January 2005 and is currently the world's largest emissions trading market. Mandatory emission reduction targets for these sectors have been set for all Member States from 0-40%, which is estimated to provide a total of 30% reduction in greenhouse gas emissions in 2005-2030. The European Commission's July 2016 proposal seeks to balance the incentives for carbon capture into soil and forests and the need to reduce emissions in other sectors. If an EU Member State repels the forest, the resulting emissions must compensate for the resulting emissions by planting new forests or by improving the sustainable management of existing forests, farmland and pastures. Reducing emissions from deforestation and forest degradation (REDD +) are among the most significant attempts to mitigate climate change at present (Agrawal et al., 2011). The new EU ETS system gradually removes the free allocation of emission allowances to individual businesses. Uniform rules

for EU-wide allowance auctions are in place. Energy, the most important sector in terms of emissions, has switched to the auctioning of allowances from 2013 onwards. However, with the possibility of an exception for isolated energy markets and states with a high proportion of fossil fuels, electricity generation. And this includes the Czech Republic. For the production sectors, the proportion of allowances allocated to the auctions will gradually increase (from the original 20% in 2013 to 70% in 2020). The revision of Directive 2003/87 / EC assumes that at least 50% of auction proceeds are subsequently used for climate protection policy. The remaining 50% should be used to offset the adverse social and economic impacts of the implementation of the climate and energy package. However, if a satisfactory agreement does not emerge within the framework of the post-Kyoto process, up to 100% of free allowances can be provided to endangered sectors, in order to protect European industry and prevent emissions being transferred to countries without comparable emission limits (ME, 2009c: 32 + 50-51 , Directive amending Directive 2003/87 / EC). Today, over 400 household appliances are included in the trade, of which 254 were in the energy sector. The EU ETS covers about 60% of all greenhouse gas emissions in the Czech Republic. More than 70% is energy (ME, 2009c). In the first trading period, the Czech Republic distributed 97.6 million allowances every year, which was an average of 12.7% more than actual emissions in the given period. For the second trading period, the Czech Republic received 86.8 million allowances per year (MoE, 2009d). The EU ETS legislative framework, according to the European Commission, is Directive 2003/87 / EC of the European Parliament and of the Council establishing an EU ETS in the Community. The Directive has been amended several times and the Directive 2009/29 / EC sets out the EU ETS in the third trading period 2013-2020. A number of more detailed European legal acts, such as regulations, decisions, communications and explanatory guidance, follow up this directive. In the Czech Republic, the EU ETS is amended by Act No. 383/2012 Coll. The law specifies the installations to which the system applies and the rights and obligations of their operators. Operators monitor their emissions, report them annually to the Ministry of the Environment, and release allowances for them. According to Hansjürgens (2007), the EU ETS and the Kyoto Protocol are functionally linked, so businesses can use not only allowances but also cheaper CERs to cover emissions from their installations within the EU ETS. In the Czech Republic, the EU ETS operates on the basis of Act No. 695/2004 Coll. on the conditions of trading in greenhouse gas emission allowances and on the amendment of certain laws incorporating the relevant EU regulations and Decree No. 12/2009 Coll., laying down the procedure for the detection, reporting and verification of the amount of greenhouse gas emissions. In connection with the approved revision of Directive 2003/87 / EC, a comprehensive amendment to the Czech law is also prepared, which specifies the use of revenues from emission allowances auctions.

2. Methodology

As has already been said, the contribution will also address the economic theory and trading systems of emissions trading. Relevant data from official and respected sources were gathered for these purposes, these systems will be presented in greater detail, including an assessment of their strengths and weaknesses. Based on economic theories, future developments will be predicted and some appropriate measures will be proposed for the Czech Republic. The work will include illustrative tables and charts, created by most author articles based on data from respected sources. As a statistical discipline, comparative analysis of time series is used in the article. Among the respected works on this topical topic can be mentioned the works - Claudine M. Chen, Johannes Gütschow, Marion Vieweg, Kirsten Macey, Michiel Schaeffer, or Modeling - Impact of the Doha outcome on the surplus emission allowances the price dynamics of CO2 emission allowances by Eva Benz and StefanTruck.

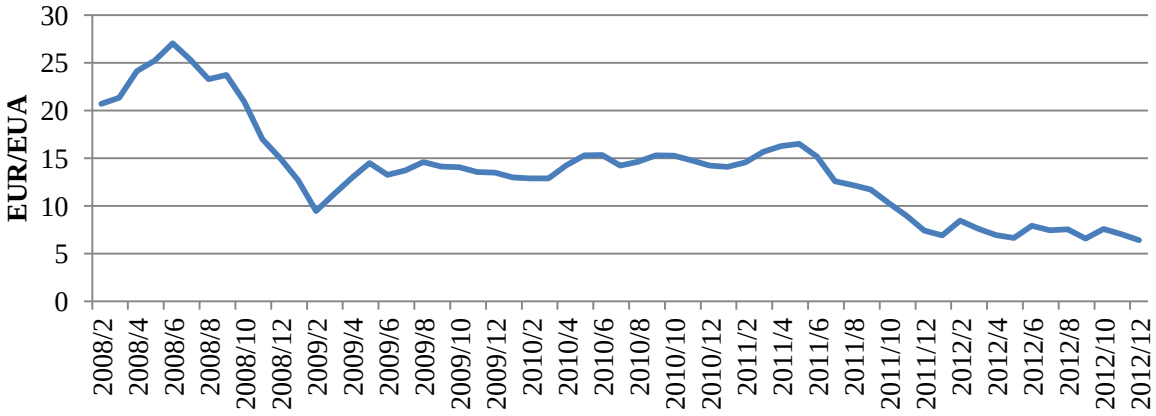
3. Results

2016 is considered globally the warmest year in the history of climate measurement since 1880. It is the third record temperature in the series. According to the World Meteorological Organization, the Second Stage is in 2015 and the third in 2014. One of the causes was the continuing El Niño effect, however, from a long-term perspective, global warming is strongly supported by human activities, especially by burning fossil fuels. (Šrámek, Novotný, 2017).
We currently have several different greenhouse gas emission trading schemes in the world. The closest to us is the European Union Emission Trading Scheme (EU ETS or ETS abbreviation), which includes all EU Member States, and the Czech Republic, on a mandatory basis. The European Union Emission Trading Scheme, the European Emissions Trading Scheme, is the world's largest greenhouse gas emissions trading system, across many countries and a number of industries (European Commission's Environment Directorate General, 2008). The EC has been created as a cost-effective yet economically efficient way to reduce greenhouse gas emissions (Directive 2003/87 / EC), as the most effective way to reach the Kyoto commitments, with a view to bringing the future low-carbon economy closer (European Commission, 2007: 3).
The system is legalized by Directive 2003/87 / EC, which entered into force on 25 October 2003, as amended by Directive 200 / 101ES. The system was launched on 1 January 2005 in all the then 25 EU Member States. At present, all EU Member States are mandatory full ETS participants, with 25 of them bound to reduce greenhouse gas emissions under the Kyoto Protocol and 2 have not set their targets. (EC, 2007: 5). The ETS is designed to interconnect with all compatible GHG emission trading systems in other countries where the Kyoto Protocol has been ratified. (EC, 2007: 20).
The EU ETS is also commonly referred to in the professional literature as the cap and trade system (European Commission, 2007: 6). Its basic principle of functioning is to determine the maximum volume of pollutant that can be emitted into the air. Both as a whole and for individual issuers, with individual shares being traded. The main instrument of the system is emission allowances, which represent a payment for the possibility of air pollution. Each emission permit represents the asset value that entitles the facility operator to release the equivalent of a ton of CO2 into the air (European Commission, 2007: 9: Act No. 695/2004 Coll.). Allowances do not exist in physical form but only in electronic form. On the accounts of their owners. In a system of registers, which is similar to the banking system, and which is incorporated into the international registry system used in the framework of the Kyoto Protocol. It is also controlled by a central designated administrator. (European Commission, 2007: 13-14). However, the authorization of the competent institution is required to operate the equipment included in the system. This permit then sets out the requirements for monitoring, reporting the volume of emissions of the facility and other obligations. Each device then allocates a given number of allowances for a predetermined period. This is set out in the so-called National Allocation Plan (NAP) for a certain period (European Commission, 2007). New EU ETS participants will receive allowances allocated free of charge from the reserve created for these purposes within the projected allocation (Directive 2003/87 / EC). In the first phase, the ETS included only CO2 emissions from large issuers in industry, heat and power generation. But also in selected energy-intensive industries. Combustion processes, oil refineries, iron and steel production plants, coke ovens, glass, lime, ceramic products, cement, paper and pulp. It depends on the production capacity or production volume of the producer concerned. (EC, 2007). If businesses keep their emissions under the allocation of allowances, they can sell surplus allowances. Conversely, companies unable to meet the emission limit may purchase missing allowances. However, they also have the option of adopting production measures that reduce the amount of carbon dioxide discharged. Changing production technology, changing used raw materials, or for example, limiting production volume. They

can also use a combination of the above-mentioned approaches. Most likely, they will be looking for the path that will bring the least cost. The cost of buying and selling allowances is based on a market principle. Offer and demand. (European Commission, 2007: 9) In other words, the system creates a liquid emissions market. Through it, carbon prices will be determined (European Commission 2005). The ETS rules do not specify where trade is to take place. It is done either directly or through brokers. (European Commission, 2005: 16). After the end of each calendar year, each operator of an installation that is included in the ETS shall surrender the number of allowances corresponding to the amount of CO2 emitted. If he fails to do so, he must pay the prescribed fine. The surrendered allowances will be discarded and can no longer be reused and put into circulation. Allowances that will not be used in a given year can be sold or used by the company next year. (European Commission, 2007). For each period provided for in Directive 2003/87 / EC, each Member State is required to draw up a national allocation plan. It sets the total quantity of allowances that will be distributed over a given period. And also the quantity allocated to individual producers. Allowances must be allocated on the basis of objective and clear criteria. They are set out in Annex III, the cited Directive (Directive 2003/87 / EC, Act No. 695/2004 Coll.). The national allocation plan must be in line with the Member State commitment. Under the Kyoto Protocol and with the current and planned progress towards its achievement. The NAP is submitted to the European Commission. It may require changes or even reject them altogether. The agreed plan and the European Commission can no longer be changed. (European Commission, 2007: 11). At least 90%, in the first phase it was even 95% of the allowances, to be distributed to the operators. (European Commission, 2007). However, this amount will gradually decrease. The system also allows operators of installations covered by the EU ETS to use credits instead of emission allowances obtained from project mechanisms defined in the Kyoto Protocol instead of emission allowances. Only up to 10% of the total quantity of allowances allocated. These project mechanisms are, for example, joint implementation (JI - Joint Implementation) and Clean Development Mechanism (CDM, Clean Development Mechanism). ETS helps companies to meet their commitments. At the same time, it also supports investments in emission reduction projects in developing countries. (European Commission, 2007: 3-4, ME, 2006: 33). The EU ETS is phased in. In stages of trading periods. The first period started on 1 January 2005. It ended on 31 December 2007. The second period was from 1 January 2008 to 31 December 2012. The third period commenced on 1 January 2013 and runs until 2020. It should be followed by a further period. (Act No. 695/2004 Coll., 12294, MoE, 2009c: 50). Currently, the third stage of ETS implementation is under way. In the current period, the system is already copying the Kyoto Protocol control period. Member States were obliged to implement the Directive into national law. The EU-ETS currently covers more than 40% of greenhouse gas emissions in the European Union (according to the Ministry of Environment, 2015c: 51). The current form of the system is criticized by a number of actors for several reasons (eg Feasta, 2007). Against the first period, the basic principles of the system have not changed. The changes are coming gradually in the third period. The European Commission has applied tighter allocation rules for individual countries for the second and third periods. It has returned its system to its core function. Motivate to reduce emissions by using a sufficiently high price of emission allowances. In the first phase, a large number of allowances were allocated incorrectly than the actual emissions. When they were reallocated, their price dropped to the value of administrative costs (about € 0.20). This, of course, has also negatively affected the overall CO2 emissions. (Ministry of the Environment, 2009c: 49). The EU ETS change is part of the climate and energy package endorsed by the EU Council and the European Parliament in December 2008. It introduces common procedures and joint solutions in the field of climate protection, security of supply and the competitiveness of European economies. (ME, 2009c: 32) A new Directive of the European Parliament and of

the Council amending Directive 2003/87 / EC was adopted. The aim is to improve and extend the greenhouse gas emission allowance trading scheme in the European Union. (ME, 2009c: 32) Member States had the task of implementing the Directive and of creating the legal and regulatory provisions that were in place to comply with this Directive by the end of 2012 with effect from 1.1.2013 (Directive amending Directive 2003/87 / EC). In the new EU ETS, the free allocation of emission allowances is being phased out. Uniform rules are in place for EU allowance auctions. Energy has been transferred to auctions since 2013. This is an exception for isolated energy markets and states. These are states that have a high proportion of fossil fuels for electricity generation. This includes the Czech Republic, where there is still a significant share of energy produced in coal-fired power plants. For production sectors, the proportion of allowances allocated to auctions is gradually increasing. The 20% share of 2013 will gradually increase to a share of seventy percent in 2020. The revision of Directive 2003/87 / EC presumes that at least 50% of auction proceeds will be subsequently used retroactively by climate protection policy. The remaining 50% will be used to offset the adverse social and economic impacts of implementing the climate-energy package of measures. However, if a satisfactory agreement is not reached within the post-Kyoto phase of the process, threatened sectors will be granted up to 100 percent of free allowances. They will be designed to ensure the protection of European industry. It also prevents emissions from being transferred to countries that do not have comparable emission limits. In this period, the current national allocation plans will cease to apply, but a single, EU-wide greenhouse gas emission ceiling will be in place for all EU ETS areas. It will be gradually reduced - by 2020 by 1.74% of allowances in order to achieve a reduction of these emissions by a total of 21% compared to 2005. (ME, 2009c: 32, Directive amending Directive 2003/87 / EC). Other industries, such as the production of ammonia, aluminum and some other greenhouse gases such as nitrous oxide (N2O) and fully fluorinated hydrocarbons, are newly included in the ETS. Some small businesses are also excluded. Based on the discovery that their participation in the system is inefficient. With related Directive 2008/101 / EC, international air transport is also included in the EU ETS from 2012 onwards. (ME, 2009c: 32 + 50, Directive amending Directive 2003/87 / EC). According to the draft of the climate protection policy (author of the Ministry of the Environment of the Czech Republic) (2009c: 50), the same rules will apply not only in the period 2013-2020, but also in the following periods. However, the overall emission ceiling will be tightened. The EU ETS operates in the Czech Republic in accordance with Act No. 695/2004 Coll., "On the Conditions for Trading in Allowances for GHG Emissions and on Amendments to Certain Acts". It incorporates the relevant EU regulations, including Decree No 12/2009 Coll., "On the determination of the procedure for the detection, reporting and verification of the amount of greenhouse gas emissions". In connection with the approval of the revision of Directive 2003/87 / EC, a comprehensive amendment to the Czech law is being prepared to specify the use of proceeds from emission allowances auctions. Currently, more than 400 home appliances are included in the trading system. Of these, 254 were in the energy sector. The EU ETS covers 60% of all greenhouse gas emissions in the Czech Republic, of which more than 70% is part of the energy sector. (MoE, 2009c: 49). Within the first trading period, the Czech Republic distributed 97.6 million allowances each year among producers. This was an average of 12.7 percent more than actual emissions in that period. For the second trading period, the EU has allocated 86.80 million allowances per year to the Czech Republic. (MoE, 2009d: 49). In 2008, the Czech Republic reported 8.5%, compared to 2007. This was, according to most authors, caused by the ongoing financial and economic crisis. As a consequence of the decrease in the dynamics of industrial production, the price of allowances has fallen by half. With a gradual return to the price of 20-30 euros. (MoE, 2009d: 49)

Graph 1. Developments in the price of the EU Emission Allowance in the period 2008-2012



Source: BlueNext, 2012; EEX, 2015

Other, world-based systems

In the United States, a greenhouse gas emissions trading scheme was launched in 1991. The Environmental Protection Organization launched it through the United States Environmental Agency (Sutlovičová, Kotecký, 2006), with the current name Acid Rain Program. Its primary task was to reduce emissions of sulfur dioxide, which is the main factor in the formation of acid rain. Today, it is also engaged in reducing nitrogen oxide production and has become a model for the European model - the EU ETS. Emission allowances are allocated to the majority of greenhouse gas producers free of charge, and the US system has so far been a rather successful and viable model. Husová says (Zbořil, Husová, 2008) that the US system described above has decreased since its inception in 1990, the total emissions by 40% by 2006, which is a very significant share in comparison with the European space. Hus also points out that, according to The Economist, it is the greatest ecological act of the past decade. (Zbořil, Husová, 2008). The greenhouse gas emissions trading system is currently also known in Japan. However, it works on a voluntary basis (ČTK, 2009).

As another possible trading system, Tradable Energy Quotas (TEQs), as stated by Fleming, have been created as a tool to reduce carbon dioxide at national levels as a complement to international systems. It is part of The Lean Economy Protection project, which helps states gradually reduce their greenhouse gas production using fossil fuels (Fleming, 2007). The system was created in 1996 and, in addition to reducing greenhouse gas emissions, it is also working to provide a fairer access to energy. Its primary tool is the Tradable Energy Quotas described above - Tradable Emission Allowances. In this version of the quotas, it is the right to emit carbon dioxide and the unit of measurement is the kilogram of emissions generated by energy production. In this system, we already encounter a so-called carbon unit. This system already includes not only the amount of carbon released from the production of energy from the defined fuel but also the total carbon brush released during the extraction, processing, treatment and transport of fuel. Other greenhouse gases are compared and rated with CO2. The comparison compares and charges the effect of these other gases with the effect of 1 kg of CO2. It is a rather progressive system that affects all greenhouse gases in this way (Fleming, 2007). The system described above leads the user to economy because unneeded allowances can be traded on the secondary market, in the form of intermediaries, but also on-line. There is a possibility of buying and selling. When purchasing, the cost of running the system is also charged to the customer, in the price of the allowance, as well as the user who does not have his account set up. This includes foreigners and other persons in the state. As described above, the allowance market is the same as any other market. The price is set on the

principle of supply and demand, it is influenced by other economic factors and is regularly published in press, news and other media (Fleming, 2007).
The previous system is a state system. The global solution to climate change (Meyer, 2000) then offers an approach called Contraction and Convergence. The system was designed by the Global Commons Institute in London. Brugges states directly that Contraction and Convergence is a mechanism designed to achieve a global agreement to reduce greenhouse gas emissions. (Brugges in Meyer, 2000: 8) Furthermore, I quote: "In today's serious debate, there is only one proposal that means a chance to unite most of the world's rich, poor people in an attempt to avert catastrophic climate change" (Meyer 2000: 15). Contraction and Convergence was adopted for the next meeting with India, China and African countries. This approach is in line with the idea of the United States for future reductions in greenhouse gas emissions. Although the obligation of developing countries will not directly reduce emissions, they will have to meet the prescribed limit. (Meyer, 2000: 63-66) In June 2000, the Royal Commission of Environmental Pollution stated that the United Kingdom should adopt the principles of Contraction and Convergence. This is the basis for an international agreement on greenhouse gas emissions. (Meyer, 2000: 9).
The Cap and Share system was developed by the Irish foundation The Foundation for the Economics of Sustainability, known as Feasta. Within the work group called The Energy and Climate Group. In November 2006, a campaign was launched, which is currently spreading the idea of Cap and Share in some countries. (Feasta, 2009). The Cap and Share system was a model for Contraction and Convergence. With the effort to transform it into a more functional system, more acceptable to poorer countries and the poor in wealthy countries (Fleming, Feasta, 2007). It is already described in 2006 and 2007 in the Faestas articles criticizing the EU Trading Scheme - EU ETS. Here the system is designed to replace the existing European system. Its description of the operation is focused precisely on the territory of the European Union. There is also mentioned the possibility of using the system on a global scale. The following handbook for 2008 is described as a global system. On www.capandshare.org, you can read that Cap and Share can be introduced for multiple levels. Cap and Share has two basic goals. Avoiding climate change by significantly reducing greenhouse gas emissions and limiting the use of fossil fuels (Feasta, 2008). A fair distribution of benefits should be given to the protection of poor people in particular. Removing inequality sees as a prevention against the opposition of the system (Feasta, 2008: 5).
The system called Cap and Dividend originates from the US and is the On the Commons project. Networks of activists supporting the idea of commons (Barnes, 2008a: 94). Barnes also draws on the idea that an all-economic system will have to be built to ensure emission reductions. It has to meet three basic principles - the greatest possible simplicity, fairness and future payments for air pollution. Principle Polluter pays! Cap and Dividend is partly based on an upstream bid approach. There is a limitation of the amount of carbon in the suppliers, instead of the issuing entities. The limit will be reduced annually. Permits are not allocated free of charge, but auctioned. Dividends are redistributed to people on a per capita basis in the final stage - each adult the same amount. (Barnes, 2008a)
According to Finance Minister David Sassoon, 3.4. 2009, Republican Chris Van Hollen from Maryland, Maryland, proposed a new draft Climate Act. It's built on Barnes' approach. It is called The Cap and Dividend - Act of 2009. According to Sassoon, Van Hollen's proposal can be integrated into the final, climate package currently under way in the legislature in the Houses. However, experts do not expect it to pass through this process without change. The prediction is that it ends with a proposal that dividends will not be paid out from the full amount of the money received through the auctions, but only in part. (Sassoon, 2009). The proof of the functionality of the system described above is presented not only by Peter Barnes, but also by Jonathan Alter - Newsweek (2007). It originates from the Alaska Permanent Fund,

which has been in existence since 1976 and annually sends checks to citizens of Alaska, with a share of state oil revenues.

Table 1: Average price of emission allowance, euro / 1 allowance (data 2015)

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
21,99	17,14	1,50	18,43	12,72	14,17	13,25	7,42	4,57	5,68	7,99

Source: ERÚ ČR, own modification
Note: is based on the average price of an emission permit set by the Energy Regulatory Office of the Czech Republic (this fixed price is converted to the Euro at an average annual rate)

Table 2: Annual GDP of the Czech Republic in %

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
6,8	7,00	5,70	3,10	-4,5	2,5	1,8	-1,0	-0,9	2,0	4,3

Source: ČSÚ, own modification

Table 3: CO2 emissions per capita in the Czech Republic, ton / per capita

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
12,45	12,54	12,57	11,96	11,11	11,23	11,08	10,64	10,39	9,92	9,92

Source: Eurostat EU, own modification

The overall CO2 emissions in each country are affected by various factors. In particular, it is necessary to interpret the data in terms of climatic conditions and GDP growth or also the population of that country. It is also necessary to take into account the export and import of fuels, energy and electricity. Here, in terms of CO2 emissions, it is preferable for a Member State to import more than its part from the production of imported fossil fuels. Long-term data from the Statistical Office show that, despite all the measures adopted, the Czech Republic together with Estonia, the Netherlands and Luxembourg are among the four countries with the highest CO2-per capita production. (Eurostat, 2016). This is apparently influenced by several factors, namely the position of the Czech Republic, the mountainous border regions of the Czech Republic and the industrial orientation of the Czech economy, focused on exports.
The comparative analysis shows that, despite the above mentioned facts, the Czech Republic is able to reduce CO2 production in the long term. Furthermore, it is quite significant that the amount of GDP affects the amount of greenhouse gas emissions. See increase in emissions from 2005-2007, coupled with GDP growth and a significant drop in 2009 emissions, coupled with a sharp fall in GDP due to the ongoing economic crisis. The function of the economic regulatory action - emission allowances is quite prominent in the data for 2007, when the decrease in GDP has led to an increase in CO2 emissions, which was probably influenced by the too low average emission allowance price on the European market. This price was probably influenced by the economic crisis that began in the western EU countries before the Czech Republic. It also follows from the data that during the economic recession, from 2015, there was no year-on-year increase in CO2 emissions. According to Eurostat, there was no year-on-year increase from the EU member states only for Germany and the Czech Republic. Among other things, this is probably due to a small, renewed increase in the price of emission allowances. The increase in emissions from other Member States shows that this price is probably unnecessarily low and does not fulfill its regulatory role well.

4. Discussion and Conclusions

Long-term scientific studies in the EU show that the introduction of a system of tradable emission permits has led to a decrease in CO2 emissions for large polluters, while emissions

from small stationary pollutants, transport and households have increased. Chart 1 also shows that in the EU ETS, the market has influenced supply and demand elasticity in the downward trend in the price of emission allowance from the original 21eur / t CO2 in February 2012, to an increase to 27 € / t of CO2, down to the price 7 eur, at 12/2012. Although it is possible to argue that the year 2012 was affected by economic depression, the price set by the Energy Regulatory Office for 2016 was 142.14 CZK / t CO2, at the current CNB exchange rate of 5.36 EUR / t CO2, which is even lower than presented data. These data signal the need for regulatory intervention by the EU institutions to ensure that greenhouse gas emissions are further reduced. Another option is the introduction of a carbon tax as a further tool to reduce greenhouse gas emissions across the EU. The functionality of this tool mix is proven, for example, by the experiences of the Nordic countries, which have been in place since the 1990s. The Tradable Energy Quotas (TEQs) system described in the third part of the article appears to be an innovative and possible direction for the positive trend of reducing greenhouse gas emissions in the European area. This system, as stated in the work, regulates citizens and small businesses and organizations and leads them to energy management. It also has a sophisticated evaluation and review system. Another capable system - Cap and Share - enables the global aspect and the involvement of developing and expanding countries in the system. In the case of these countries, it is about freezing the greenhouse gas production to the current state. However, future developments in the EU territory can be predicted by increasing the importance and involvement of environmental taxes in the mix of instruments designed to reduce greenhouse gas emissions. In particular, so-called carbon taxes. The Czech Republic also has a study on the introduction of carbon tax, including an impact study. The statistical comparative analysis shows the dependence of the growth of GHG production on GDP development. And the regulatory function of emission allowances, with the need to correctly determine their price.

A further research in this area and the ongoing evaluation of data and data will be required for the correct composition of the economic tool mix to reduce CO2 emissions.

References

1. BARNES, P. *Climate Solutions. A Citizen´s Guide.* White River Junction, Vermont (USA): Chelsea Green Publishing Company, 2008a. 96s .Also available on World Wide Web: <http://www.capanddividend.org/files/Climate%20Solutions.pdf>.
2. BARNES, P. The Cap and Dividend Solution. *OntheCommons.org website* [online]. USA: On the Commons, 25. září 2008c [cit. April 25, 2009]. Also available on World Wide Web: <http://www.onthecommons.org/content.php?id=2240>.
3. DALY, H. E. *Beyond Growth.*Boston (USA): Beacon Press, 1996. 253 s. ISBN 0-8070-4709-0.
4. European Commission. EU action against climate change. EU emissions trading - an open scheme for promoting global innovation (brochure). Brussels (Belgium): European Communities, 2007. 20 pp. ISBN 978-92-79-06862-1. Also available on the World Wide Web: <http://ec.europa.eu/environment/climat/pdf/bali/eu_action.pdf>.
5. European Commission's Environment Directorate-General. Emission Trading Scheme (EU ETS). Europa website [online]. European Union: European Commission [cit. 14 November 2008]. Available on the World Wide Web: <http://ec.europa.eu/environment/climat/emission/index_en.htm>.
6. Feast. Cap & Share. A fair way to cut greenhouse emissions. Dublin (Ireland): Feasta, May 2008. 32s. Also available on the World Wide Web: <http://www.feasta.org/documents/energy/Cap-and-Share-May08.pdf> or <http://www.capandshare.org/downlo ad_files/C&S_Feasta_booklet.pdf> .

7. Feast. Energy and Climate. Feasta website [online]. Dublin (Ireland): Feasta, 2009 [cit. 17 April 2009]. Available on the World Wide Web: <http://www.feasta.org/energy.htm>.
8. FLEMING, D., Feasta. A comparison of TEQs and C & S (table prepared by David Fleming and Feasta). Feasta website [online]. Dublin (Ireland): Feasta, July 2007 [cit. 26 May 2008]. Available on the World Wide Web: <http://www.feasta.org/documents/energy/C&S_TEQs.htm>.
9. Intergovernmental Panel on Climate Change. Climate Change 2007: Synthesis Report. Geneva (Switzerland): Intergovernmental Panel on Climate Change, 2008. 104 pp. ISBN 92-9169-122-4. Also available on the World Wide Web: <http://www.ipcc.ch/ipccreports/ar4-syr.htm>.
10. MEYER, A. Contraction & Convergence. The Global Solution to Climate Change. 1.vyd. Devon: Green Books Ltd, 2000. 92s. ISBN 1-870098-94-3.
11. On the Commons. About the Organization. OntheCommons.org website [online]. USA: On the Commons, 2009 [cit. 20 April 2009]. Available on the World Wide Web: <On the Commons. About the Commons.
12. OntheCommons.org website [online]. USA: On the Commons, 2009 [cit. 17 May 2009]. Available on the World Wide Web: <http://www.onthecommons.org/content.php?id=1467> . http: //www.onthecommons.org/content.php? Id = 171
13. SASSOON, D. New Climate Bill to Send Polluter-Pay Rebates to American Families. Solve Climate website [online]. USA: Science First, Inc., April 3, 2009 [cit. 25 April 2009]. Available on the World Wide Web: <http://solveclimate.com/blog/20090403/new-climate-bill-send-polluter-pay-rebates-american-families>.
14. ŠRÁMEK, V., NOVOTNÝ R., (2017): Weather Conditions, Random Mining and Abiotic Damage in 2016. Proceedings of Reports Malicious Factors in the Forests of the Czech Republic 2016/2017 - Practical Protection of Forests in Contemporary Conditions, Průhonice 2017, Volume 20 , pp. 11-13, Jíloviště - Strnady, 2017. ISBN 978-80-7417-136-9.
15. ZBOŘIL, J., HUSOVÁ, K. Can changes in the emissions trade increase energy? Literary Newspaper, 2008, No. 8, page 14. Also available on the World Wide Web: <http://www.literarky.cz/index_o.php?p=clanek&id=5026>.
16. Directive 2009 /.../ EC of the European Parliament and of the Council of ... amending Directive 2003/87 / EC in order to improve and extend the scheme for greenhouse gas emission allowance trading within the Community. Also available on the World Wide Web: <http://register.consilium.europa.eu/pdf/en/08/st03/st03737.en08.pdf>. (the directive at the time when it is quoted in this work, has not yet officially gone)
17. Directive 2003/87 / EC. 13 October 2003.
18. Act No. 695/2004 Coll. on the conditions of trading in greenhouse gas emission allowances and on the amendment of certain laws. Also available on the World Wide Web: <http://aplikace.mvcr.cz/archiv2008/sbirka/2004/zakon_12.html#castka_235>.

Authors

JUDr. LadislavRozenský
Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Kamýcka 129, 165 21, Prague 6 - Suchdol, Czech Republic, rladislav@seznam.cz

Doc. Ing. MiroslavHájek, Ph.D.
Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Kamýcká 129, 165 21, Prague 6 - Suchdol, Czech Republic, hajekmir@volny.cz

JUDr.et Mgr. Ing. Jan Lípa, MBA, Ph.D.
First Faculty of Medicine, Charles University, Kateřinská 32, 121 08, Prague 2, Czech Republic,at Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Kamýcka 129, 165 21, Prague 6 - Suchdol, Czech Republic, jan.lipa@centrum.cz

Ing. Petr Hukal
Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Kamýcká 129, 165 21, Prague 6 - Suchdol, Czech Republic, petr@rozvoj.net

Prof. Francisco Dupas
Federal University of Itajubá, Brazil, dupas_unifei@hotmail.com

Fernanda Luz, MAs
Federal University of Itajubá, Brazil, giffoni.f@gmail.com

PROCESY EX-ANTE POSUZOVÁNÍ DOPADŮ LEGISLATIVY V EU

EX-ANTE LEGISLATIVE IMPACT ASSESSMENT PROCEDURES IN THE EU

Šimon Buryan

Abstrakt

V roce 2002 došlo k zavedení proces Posouzení dopadů (v angl. Impact Assessment - IA). Tento poces má ex-ante hodnotit dopad navrhované legislativy. Proces je koncipování tak, aby docházelo k vyhodnocování politik a právních předpisů v Evropské Unii (EU) transparentně a tento proces se vztahuje se na všechny oblasti politiky. Vyhodnocování má být podloženo důkazy a názory občanů a zúčastněných stran. Tento článek hodnotí proces v EU jako takový a s přihlédnutím k případu nařízení Evropského parlamentu a Rady (ES) č. 1907/2006 ze dne 18. prosince 2006 o registraci, hodnocení, povolování a omezování chemických látek (nařízení REACH).

Klíčová slova: *Impakt assessment, EU, REACH, lepší regulace*

Abstract

The Impact Assessment (IA) process was launched in 2002. This ex-ante evaluation is intended to evaluate the impact of the proposed legislation. The process is designed in such a way that policies and legislation are transparently evaluated in the European Union (EU), and this process applies to all policy areas. The evaluation should be supported by the evidence and views of citizens and stakeholders. This article evaluates the process in the EU as such and taking account of the case of regulation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Key words: *Impakt assessment, EU, REACH, better regulation*

1 ÚVOD

Sekundární právo představuje "legislativou" Evropské unie (EU). Zahrnuje normativní právní akty EU, které mají podobu nařízení, směrnice a rozhodnutí, doporučení nebo stanoviska. Sekundární právo vytvářejí instituce (orgány) EU na základě primárního práva (zřizovacích smluv, zejména Smlouvy ES, částečně také Smlouvy EU a dalších smluv) a tak pravidla sekundárního práva musejí být konečně s primárním právem v souladu. Nařízení a směrnice jsou pak po přijetí přijímány do legislativy členských států.

Právo EU koordinuje mnohé politiky členských států, např. sociální politiku, politiku ochrany spotřebitele, politiku ochrany životního prostředí. Dále obchodní, zemědělská, dopravní a měnová politika jsou společné pro všechny členské země. Právo EU má tak značný dopad na fyzické a právní subjekty působící na území EU a Evropského hospodářského prostoru (EHP). Na kvalitu přijímané legislativy jsou tak vztaženy vysoké nároky, aby nedocházelo k nechtěným škodlivým dopadům legislativy a panovala většinová shoda nad přijímanou legislativou. V roce 2002 byl zaveden proces Posouzení dopadů (v angl. Impact Assessment), který má ex-ante hodnotit dopad navrhované legislativy.

Proces posouzení dopadů je stálou součástí procesů na úrovni institucí EU. Posouzení dopadů je považováno za nejlepší praxi v rámci různých snah ve směru strategie Zlepšování právní úpravy (či zlepšení právních předpisů). Program pro zlepšování právní úpravy je koncipování

tak, aby docházelo k vyhodnocování politik a právních předpisů EU transparentně. Vyhodnocování má být podloženo důkazy a názory občanů a zúčastněných stran. Tento proces se vztahuje se na všechny oblasti politiky. Hlavním cílem je vytváření smysluplných a užitečných právních aktů, které nepřekračují rámec toho, co je nezbytné k dosažení stanovených cílů. Tyto cíle mají být splněny také za použití minimálních nákladů.

Tato práce je zaměřena na proces Posouzení dopadů sekundárního práva EU.

Diskutované přístupy jsou aplikované na nařízení Evropského parlamentu a Rady (ES) č. 1907/2006 o registraci, hodnocení, povolování a omezování chemických látek, o zřízení Evropské agentury pro chemické látky. Na základě původního oficiálního názvu v angličtině se pro nařízení vžil název REACH. REACH představuje akronymem vytvořeným z anglických výrazů vystihující podstatu nařízení- registrace (registration), hodnocení (evaluation) and autorizace (authorisation) of chemikálií (chemicals).

Nařízení REACH bylo považováno za nejvíce analyzované nařízení EU v její historii a kampaně, které usilovaly o úpravu původních návrhů nařízení REACH, jsou považovány za největší lobbistickou bitvu v historii EU (Corporate Europe Observatory 2005).

2 ZLEPŠOVÁNÍ PROCESŮ V EU

Institucí EU byla a je vytýkána řada nedostatků. Procesy v těchto institucích jsou kritizované jako neefektivní, netransparentní či málo demokratické. Tyto problémy se odvíjejí od skutečnosti, že procesy integrace v EU významně gradují již od 80. let, kdy Evropské společenství (ES) prošlo zásadním kvalitativním posunem a význačné zásadní vládní funkce byly přeneseny z gesce orgánů členských států na úroveň ES/EU a tak se instituce ES/EU staly zásadní instancí rozhodující o mnohých právech a povinnostech fyzických i právnických osob v členských zemích. Není podivem, že se Společenství od té doby začalo v mnohém připodobňovat ke státu. Nicméně současná EU státem není, nicméně institucím EU je vytýkáno, že mají v mnohých oblastech velké množství moci a přitom nepodléhají demokratickým procesům, které by zabezpečily to, že přijímané politiky a legislativy mají podporu veřejnosti (Břicháček 2006).

Byla podniknuta řada opatření, které cílí na přiblížení rozhodujícím procesům veřejnosti. Např. Lisabonská smlouva zavedla Evropskou občanskou iniciativu, která umožňuje jednomu milionu občanů EU, mezi nimiž jsou zastoupeni občané minimálně z čtvrtiny členských států EU, požádat Komisi o navržení legislativy spadající do některé z politik EU. Dále bylo v Lisabonské smlouvě posíleno postavení Evropského parlamentu, který má větší slovo při schvalování evropské legislativy. Posíleny byly i vnitrostátní parlamenty členských zemí, které jsou průběžně informovány o připravovaných legislativních aktech a představují garanty subsidiarity. Dále dle Lisabonské smlouvy získaly vnitrostátní parlamenty osm namísto šesti týdnů na dodání stanoviska u každého legislativního návrhu, a pokud bude mít jedna třetina (či jedna čtvrtina v případě vnitra nebo justice) námitky, pak se musí Evropská komise jejich stanoviskem zabývat (Zenkner 2008).

Mezi opatření, která mají zlepšit klíčové procesy v EU a učinit je více transparentními, spadá proces Posouzení dopadů legislativy, který byl přijat v roce 2002 jakou součást agendy Zlepšování právní úpravy. Posouzení dopadů je jak evropskou politikou, která byla vypracován v rámci agendy Zlepšování právních úprav v EU, tak i postup pro ex-ante hodnocení možných hospodářských, sociálních a environmentálních dopadů návrhů vypracovaných Evropskou komisí. Tyto studie hodnotí legislativní návrhy před tím, než dojde k jejich schválení ostatními evropskými institucemi. Tento postup je založen na společném pracovním formátu, společné metodologie pro analýzu a vyhodnocení očekávaných dopadů, a

spolupráci mezi útvary Komise. Postup generuje podklady sloužící ke zkoumání a diskuzi o proveditelných alternativách k navrhované legislativě. Do tohoto procesu jsou zahrnuty konzultace s odborníky a zúčastněnými stranami (Melloni 2015).

2.1 Nadpis podkapitoly

V roce 2002 vydala Komise sdělení „Evropská veřejná správa: zdokonalení tvorby právních předpisů“ (European Commission 2002). V tomto sdělení byly deklarovány tři iniciativy, které měly být použity ve všech oblastech právních předpisů EU od roku 2003 (Melloni 2015):

- Akční plán pro zjednodušení a zlepšení právního prostředí (akční plán pro Lepší regulaci,
- přijetí procesu Evropské komise na Posouzení dopadů legislativy EU,
- návrh na obecné zásady a minimální standardy pro konzultace zainteresovaných stran ze strany Komise.

Zmíněné iniciativy označil formální zahájení strategie Zlepšování právní úpravy. Tato strategie měla obsahovat tři aspekty: zjednodušení regulačního prostředí, posouzení dopadu a zvýšení participace. Strategie Zlepšování právní úpravy a její výsledky byly pravidelně hodnoceny (European Commission 2006, 2008, 2009a) a pokyny pro Posuzování dopadů legislativy EU byly dále zlepšovány.

2.2 Proces Posuzování dopadů

Proces Posuzování dopadů měl tři ambiciózní cíle (Simon 2014):

- Zlepšení kvality legislativních návrhů, a to prostřednictvím systematičtějších návrhů politik, které budou koherentní, analytické, a založené na důkazech. Zároveň tento proces poskytuje přísný, vyvážený a úplný přehled vlivu návrhu na sociální, ekonomickou a environmentální dimenzi.
- Informování subjektů rozhodujících o návrzích o důsledcích politických rozhodnutích, aby bylo možné posoudit kompromisy a porovnat různé scénáře při rozhodování o konkrétních krocích.
- Udělat evropský politický procesu otevřenější a transparentnější tím, že podpoří rychlou a efektivní koordinaci v rámci Komise, a posílí externí komunikace.

Proces Posuzování dopadů je povinný a společný nástroje, který má být použit všemi ředitelstvími Komise jako způsob, jak posoudit možné hospodářské, sociální a environmentální důsledky nejdůležitějších iniciativ před jejich formálním schválení Komisí. Stojí za zmínku, že dle postupu Společenství, Komise podá návrh Radě a Evropskému parlamentu, kteří jej prodiskutují, navrhnou změny a poté může dojít k přijetí či odmítnutí návrhu. Metoda Společenství se vyznačuje monopolem práva na iniciativu, která je vyhrazena Komisi (Simon 2014).

Postup Posuzování dopadů je integrován v rámci strategického plánování a programového cyklu Komise. Postup Posuzování dopadů musí být aktivována daným ředitelstvím Komise (DG) podporujícím danou iniciativu. Toto DG zůstává plně odpovědné za kvalitu posouzení dopadů. Postup je založen na:

- Integrovaný přístup, který analyzuje přínosy i náklady a řeší všechny významné ekonomické, sociální a ekologické dopady případných nových iniciativ a politické možnosti,

- společná kvalitativní a kvantitativní metodiky pro hodnocení, včetně administrativní zátěže regulace,
- spolupráce mezi danými DG s cílem zajistit shrnutí všech dostupných odborných znalostí v Komisi,
- konzultace zúčastněných stran, aby byla zajištěna otevřenost a transparentnost. Pokyny jsou poskytovány s cílem usnadnit posuzování.

Hlavní dokument popisuje podrobné kroky a postup u všech zúčastněnými aktérů. Přílohy podávají další technické specifikace a zahrnují vzorek osvědčených procedur postup Posuzování dopadů (Simon 2014).

3 RESUMÉ O SOUČASNÉM STAVU IA V EU

Mnoho komentátorů považuje proces IA za nedostatečný. Často se uvádí, že "předložené důkazy" jsou náchylné k politickým manipulacím a vlivům ze široké škály zájmových skupin včetně silných průmyslových lobbystických skupin. Dokonce i vědci mají pocit, že jsou manipulováni politiky, kteří se snaží prosazovat specifické politické iniciativy. Velkou výzvou pro Evropskou komisi je dle Anne Gloverová, hlavní vědecká poradkyně EU, odpojení procesu shromažďování důkazů od "politického imperativu", který řídí politické návrhy, uvedla (Simon 2014).

Základním zdůvodněním je, že technická kvalita analýzy ovlivňuje kvalitu rozhodnutí. Mnoho hodnocení účinnosti nástrojů posuzování dopadů se zaměřuje na tento bod, často přichází k nepohodlným závěrům. Nicméně existují nedostatky pro realizaci přesné analýzy, a tudíž schopnost ovlivnit konečné rozhodnutí je relativně omezené (Melloni 2015: 23).

Právě to narušilo schopnost např. Zejména GŘ AGRI posílit svůj technický přínos s cílem zajistit soudržnost analýz z hlediska ekonomické účinnosti předložených návrhů a navíc snížil svou vyjednávací sílu ve vztahu k Ředitelstvím Komise (IRS 2007).

Evropský účetní dvůr v roce 2010 zjistil, že analýza posouzení dopadů nebyla Komisí použita, aby se rozhodla, zda bude pokračovat v návrhu. Rozhodnutí, zda zahájit iniciativu, je obecně přijato před dokončením zprávy o posouzení dopadů. Komise používá spíše posouzení dopadů, aby shromáždila a analyzovala důkazy, které se během procesu rozvoje návrhů používají ke zlepšení navrhované iniciativy komise (European Court of Auditors 2010: 18).

Další vysvětlení spočívá v charakteristických rysech rozhodovacího procesu: s ohledem na složitost problémů, rozmanitost a nejednoznačnost cílů a nejistotu týkající se výsledků možných řešení je nejlepší rozhodovací strategií maximalizovat přínos znalostí, kompetencí a systémů racionality, které nabízejí instituce a společnost jako celek. Z tohoto důvodu může na úrovni odvětvových politik zavádění procesů otevřených pro příspěvky kolegů, odborníků a zúčastněných stran na jedné straně snížit chyby a rizika nevědomosti; na druhé straně podporovat koordinaci a spolupráci při rozhodování (Melloni 2015: 23).

Tabulka 1: Shrnutí hlavních analytických kroků postup Posuzování dopadů

Oblast	Úkoly
Identifikace problému	○ Popsat povahu a rozsah problému. ○ Identifikaci klíčových hráčů / obyvatele postižených. ○ Zřídit ovladače a základní příčiny. ○ Je problém v kompetenci Unie jednat? ○ Má to projít nutnost a přidaná hodnota test? ○ Vypracovat jasnou základní scénář, včetně, pokud je to nutné, citlivostní analýzy a hodnocení rizik.
Definovat cíle	○ Stanovit cíle, které odpovídají problému a jeho příčin. ○ Stanovit cíle na několika úrovních, od obecného ke specifické / operativní. ○ Ujistěte se, že cíle jsou v souladu se stávajícími politikami a strategiemi EU, jako je Lisabonská strategie a strategie udržitelného rozvoje, respektování základních práv, jakož i hlavních priorit a návrhů Komise.
Vyvinout hlavní možnosti politiky	○ Identifikovat politické možnosti, případně odlišující mezi možnostmi pro obsah a možnosti k dodání mechanismy (regulační / neregulační přístupy). ○ Zkontrolujte zásadu proporcionality. ○ Zahájit zúžit rozsah pomocí screeningu na technických a jiných překážek, a měření podle kritérií hospodárnosti, účinnosti a soudržnosti. ○ Nakreslete-up užší seznam potenciálně platné možnosti pro další analýzu.
Analyzovat dopady možností	○ Identifikovat (přímé a nepřímé) hospodářská, sociální a environmentální dopady a jak k nim dojde (kauzalita). ○ Zjistit, kdo je ovlivněn (včetně těch mimo EU) a jakým způsobem. ○ Posoudit dopady proti výchozímu stavu v kvalitativních, kvantitativních a peněžním vyjádření. Pokud kvantifikace není možné vysvětlit, proč. ○ Identifikovat a posoudit administrativní zátěž výhody / zjednodušení (nebo poskytnout odůvodnění, pokud se tak nestane). ○ Zvážit rizika a nejistoty v politických možností, včetně překážek transpozice / shody.
Porovnat možnosti	○ Odváží-up pozitivních a negativních dopadů pro každou možnost na základě kritérií jasně souvisí s cíli. ○ Tam, kde je to možné, displej sečteny a rozložené výsledky. ○ Současné srovnání mezi možnostmi podle kategorií dopadů nebo zúčastněných stran postižených. ○ Identifikovat, pokud je to možné a vhodné, preferovanou volbu.
Identifikace problému	○ Popsat povahu a rozsah problému.
Nastínit, sledování a vyhodnocování politiky	○ Identifikovat hlavní ukazatele pokroku pro klíčové cíle možné intervence. ○ Poskytnout hrubý nástin možných opatřeních v oblasti sledování a hodnocení.

Zdroj:European Commission 2009b

Pokud tomu tak je, pak bychom mohli dospět k závěru, že IA umožňuje marginální zlepšení pokročilých návrhů, ale pravděpodobně není schopna ovlivňovat rozhodující rozhodnutí.

Tudíž předpoklad, že IA slouží k ovlivnění základní kvality rozhodnutí, se nezdá být zvlášť opodstatněný (Melloni 2015: 23).

Zatímco posouzení dopadů může mít pro rozhodovací proces určité výhody, má také některé nevýhody: přináší značné náklady z hlediska zdrojů a může mít také značné politické náklady. To platí samozřejmě i pro Evropskou komisi: jednalo se o vytvoření komplexního procedurálního systému, který zahrnuje více než rok práce pro předkladatele návrhů a mnoho dalších aktérů a vystavuje je a politické osobnosti, které stojí za nimi, riziku, že budou muset modifikovat své návrhy drasticky nebo dokonce je opustit.

Analýza Evropské komise se však dosud stala poměrně dobře zavedeným systémem a navzdory určitým omezením a slabým stránkám se obecně považuje za dobrý postup na mezinárodní scéně (Melloni 2015: 24).

4 HODNOCENÍ DOPADŮ NAŘÍZENÍ REACH

Odhad nákladů a přínosů návrhu nařízení REACH spolu s celkovou úlohou, kterou převzala IA, hrála nesmírně důležitou úlohu v legislativním procesu Komise. Před návrhem nařízení REACH byl vydán v dokumentu 2 2 001, tj. Před zavedením postupu posouzení dopadů v evropském rozhodovacím systému, bílá kniha, která stanovila obecný akční plán. Cílem návrhu bylo zavést nové nařízení o účincích chemických látek, které se již na evropském trhu nacházejí před rokem 1981, na účinky na životní prostředí a na zdraví: před tímto datem byly tyto látky podrobeny regulačnímu systému, který je mnohem méně přísný než v následujícím období. Cílem návrhu REACH bylo převést odpovědnost za bezpečnost chemických látek do chemického průmyslu, což by podle nových evropských předpisů mělo zaznamenat skutečně značné množství látek (30 000 látek vyrobených nebo dovezených v množství přesahujícím jednu tunu na rok) (Meuweuse 2008: 198).

Návrh REACH, který společně vypracovaly GŘ pro životní prostředí, A GŘ pro podniky a průmysl, byl předmětem takové diskuse, že byl považován za nejvíce analyzovaný legislativní návrh v historii celé EU, včetně opakovaných provedených analýz IA a aktivního zapojení mnoha externích čísla. Důležitou roli zde hrála lobby evropského chemického průmyslu a členské státy, které se nejvíce obávaly dopadu na svůj vnitřní průmyslový systém (Francie, Německo a Spojené království) a nevládní organizace v oblasti životního prostředí. Veřejná konzultace prostřednictvím internetu o předběžném návrhu REACH IA, která byla provedena v létě roku 2003, nasbírala více jak 6400 reakcí. Zveřejnění konečného posouzení dopadů, které obsahovalo významné změny návrhu, přesto vyvolalo další diskuse na různých frontách a podnítilo průmyslovou lobby, aby předložila své vlastní hodnocení dopadů. Mezitím environmentální skupiny odsoudily proliferaci studií, které zveličovaly kvantifikaci nákladů, které přinášejí firmám. Do října 2004 bylo k dispozici 36 studií o IA, a celkem na 50 jich bylo předmětem zdlouhavé diskuse v Parlamentu a Radě. Politická jednání o návrhu REACH byla účinně zahájena teprve během období britského předsednictví a Rada konečně dosáhla politické dohody dne 13. prosince 2005. Návrh byl konečně přijat v prosinci 2006 (Meuweuse 2008: 198).

4.1 HODNOCENÍ DOPADŮ NAŘÍZENÍ REACH

Generální ředitelství pro životní prostředí nechalo vypracovat před přijetím nařízení REACH zprávu mapující vliv nařízení na lidské zdraví a životní prostředí. Vyhodnocení tohoto druhu je trpí na řadu nedostatků, především pak z titulu nedostatků dostatečně rozvinuté metodiky a nedostatku kvality dat. Níže uvedené údaje je tedy nutno brát s rezervou, jako přibližné odhady (DHI W & E 2005).

Studie tedy dospěla ke stanovisku, že potenciální přínos REACH pro životní prostředí a člověka vystavený životnímu prostředí se odhaduje pomocí robustního přístupu minimálně při úrovni 150-500 milionů EUR ročně v roce 2017 s potenciálním dlouhodobým přínosem v porovnání s následujícími 25 roky 2 800 až 9 000 mil. €. Tyto odhady jsou založeny na dobře zdokumentovaných případech nákladů v kombinaci s předpoklady o možných přínosech nařízení REACH (DHI W & E 2005).

S využitím mnohem slabších přístupů se přínos z úsporných nákladů na zdravotní péči odhadovaly na 200-2500 milionů EUR ročně v roce 2017, což za 25 let odpovídá částce 4 000 až 50 000 milionů EUR. Opět lze tyto hodnoty chápat pouze jako orientační hodnoty potenciálních přínosů REACH pro životní prostředí a osoby vystavené životnímu prostředí. Hodnoty jsou založeny na velmi slabém souboru dat. Přesnější odhad by vyžadoval generování nových údajů a klíčovou úlohou REACH je právě generovat takové údaje (DHI W & E 2005).

Řada studií nabízela také s vybranými výhodami, které lze snadno nominální kvantifikovat. Na základě těchto studií, lze dospět k závěru, že příjmy nařízení REACH jasně převýší náklady. Můžeme brát v potaz například níže uvedené studie.

- Látky PCB (polychlorované bifenyly), tedy skupina nebezpečných chemikálií, které jsou vysoce nebezpečné při nízkém dlouhodobém vystavení, se v minulosti široce užívaly, ale dnes jsou zakázané. Náklady na eliminace jejich znečištění budou stát EU mnohem víc než např. náklady na nařízení REACH. Pokud nařízení REACH zabrání jednomu takovému novému nebezpečí z rozsahu PCB, přínosy nařízení REACH jasně převýší jeho náklady (Bahr 2004).
- Pokud bude nařízení REACH eliminovat 1 procento nemoci z povolání v Evropě, kvůli snížení expozice toxickým chemikáliím na pracovišti, ušetří se náklady na zdravotní péči zhruba na úrovni nákladů REACH (Pickvance 2005: 8-10).
- Náklady na ušetřené náklady na zdravotní péči díky nařízení REACH budou jednoznačně vyšší než náklady nařízení. Přínosy jsou oproti nákladům vyšší přibližně o 50 až 600 % (Pearce, Koundouri 2003: 5-7).
- Odhady několika kategorií přínosů Evropskou komisí odhalují benefity v celkové výši 50 miliard eur, což je více než desetinásobek (3,5 miliard Eur) přímých nákladů REACH (European Commission 2003, DHI W & E 2005: 3, RPA 2003). Dodatečná studie pro Evropskou Komisi zvýšila odhad přínosů na 95 miliard Eur v období 25 let (Witmond 2004).

Evropská komise odhadovala náklady původní verzi návrhu na REACH na 3,7 miliard Eur a později odhad snížila na 2,3 miliardy EUR. Studie pro Severskou radu ministrů pracovala s nepatrně odlišnými technickými předpoklady a odhadla náklady na 3,5 miliardy EUR. Jsou dostupné dobře definované zkušební požadavky a soubor standardních odhadů nákladů na provedení požadovaných testů v evropských laboratořích. Přibližná konvergence jednotlivých odhadů nákladů tedy není překvapením. I studie zástupců chemického průmyslu obvykle uvádí přímé náklady pouze dvojnásobné oproti jiným studiím. Sdružení CEFIC odhadovala náklady na 8 miliard Eur pro období deseti let. Tyto náklady je nutn porovnat k celkovým tržbám celého odvětví, které dosahuje úrovně 500 miliard EUR. (Ackerman 2008: 186).

Náklady pro velké firmy nevyvolávají žádné neúnosné ztráty. Nařízení, jak poukazují zástupci průmyslu, může být pro malou společnost vyrábějící produkty pro spotřebitele s velkým množstvím rozličných látek vysoce nákladné, či jí mohou tyto náklady odradit od dalšího podnikání. Nicméně malé firmy musejí jednat podle jasných daných pravidlech, které existují na trhu, a určitě by neměly mít právo dodávat na trh výrobky zdravotně závadné na rozdíl od

produktů velkých firem. Malé podniky by spíše měly dostat podporu od veřejných orgánů či přímo velkých společností, aby mohly vyvinout bezpečnější látky pro svou produkci. Pokud by se kvůli vysokým nákladům pro malé podniky nepřijalo či přímo zrušilo nařízení REACH, bylo by to pro veřejnost velice nevýhodné či přímo špatné řešení po stránce snížení ochrany lidského zdraví a ochrany životního prostředí (Ackerman 2008 197-198).

5 ZÁVĚR

Tato práce poukázala na některé aspekty posuzování dopadů legislativy na úrovni EU.

Procedura trpí nedostatky po té stránce, že její metodiky často nemohou plně podchytit skutečnost a vydat jasné doporučení pro další směřování legislativního návrhu. Dalším specifikem je, že Evropská Komise tento nástroj využívá především jako podporu vlastních iniciativ a upřesnění některých detailů, nicméně rozhodnutí o založení vlastní iniciativy je stále rozhodnutí politické a procedura na něj tedy nemá takový vliv.

Velkou roli hrála procedura posuzování dopadů při diskuzi ohledně návrhů nařízení REACH. Návrh nařízení se stal předmětem velkých sporů mezi soukromými zájmy průmyslu a veřejnosti. Byla provedena velká řada dopadových studií a diskuze během přijímání nařízení byly zdlouhavé.

Nicméně vlastní podoba nařízení dle ex–ante hodnocení zřejmě přinese vyšší přínosy, než jaké budou její náklady. Výsledný návrh byl v některých oblastech oslaben oproti původním záměrům, ale jádro návrhu nedošlo zásadních změn.

Poděkování

Výsledky této publikace byly dosaženy za pomoci štědré podpory výzkumného grantu VŠE Praha - FMV: číslo zakázky - IG271036, číslo projektu – F2/36/2016, název projektu - Metodologie ekonomického, politického a právního hodnocení zavádění environmentálních inovací do praxe.

Použitá literatura

1. ACKERMAN, Frank. *Poisoned for Pennies*. Washington: Island Press, 2008. ISBN 978-1-59726-401-3.
2. BAHR, Jenny Von. *Cost of late action-the case of PCB*. Nordic Council of Ministers. [online]. 2004. [cit. 2017-09-20]. Dostupné na: https://books.google.cz/books?hl=cs&lr=&id=CSJGwTiMXe4C&oi=fnd&pg=PA7&dq=Cost+of+Late+Action&ots=4ed5QIcg_1&sig=vTlSqJjXPOzGkvyF2jU16TlZVk0
3. BŘICHÁČEK, Tomáš. Demokratický deficit EU: mýty a skutečnost. In: Revue Politika 2006, 2 [online]. 2006 [cit. 2017-09-20]. Dostupné na: https://www.cdk.cz/demokraticky-deficit-eu-myty-skutecnost.
4. CORPORATE EUROPE OBSERVATORY. *Bulldozing REACH – the industry offensive to crush EU chemicals regulation.* [online]. March 2005. [cit. 2017-05-06]. Dostupné na: http://archive.corporateeurope.org/lobbycracy/BulldozingREACH.html
5. DHI W & E (WATER & ENVIRONMENT). *The impact of REACH on the environment and human health* [online]. Září 2005 [cit. 2017-09-20]. Dostupné na: http://ec.europa.eu/environment/chemicals/reach/pdf/background/impact_on_environment_report.pdf
6. EUROPEAN COMMISSION. Completed Evaluations [online]. 2014 [cit. 2017-09-20]. Dostupné na: http://ec.europa.eu/dgs/economy_finance/evaluation/completed/index_en.htm#evaluation

7. EUROPEAN COMMISSION. *Extended Impact Assessment of REACH Sec 1171/3*. Brusel. [online]. 29.10.2003. [cit. 2017-09-20]. Dostupné na: http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2003/sec_2003_1171_en.pdf
8. EUROPEAN COMMISSION“ A Strategic Review of Better Regulation in the European Union,” COM(2006)689. 2006.
9. EUROPEAN COMMISSION“ European Governance: Better lawmaking,“ COM(2002) 275 final. 2002.
10. EUROPEAN COMMISSION“ Second Strategic Review of Better Regulation in the European Union,” COM(2008)32. 2008.
11. EUROPEAN COMMISSION“ Third Strategic Review of Better Regulation in the European Union,” COM(2009)15. 2009a.
12. EUROPEAN COMMISSION. *Impact Assessment Guidelines*. [online]. 2009b. [cit. 2017-09-20]. Dostupné na:http://ec.europa.eu/smart-regulation/impact/commission_guidelines/docs/iag_2009_en.pdf
13. EUROPEAN COURT OF AUDITORS. *Impact Assessments in the EU Institutions: Do They Support Decision-Making? Special Report n.3.* [online]. 2010. [cit. 2017-09-20]. Dostupné na: http://ec.europa.eu/smart-regulation/impact/docs/coa_report_3_ 2010_en.pdf
14. Melloni, Erica. Ten years of European Impact assessment. [online]. Prosinec 2015 [cit. 2017-09-20]. Dostupné na: https://www.researchgate.net/publication/286926268
15. MEUWEUSE, Anne C. M. Impact Assessment in EU Lawmaking. Disertační práce. Institut of Legal Studies of Leiden University. [online]. 2008. [cit. 2017-09-20]. Dostupné na: https://openaccess.leidenuniv.nl/bitstream/handle/1887/12589/Thesis.pdf
16. PEARCE, David; KOUNDOURI, Phoebe. *The social cost of chemicals: The cost and benefits of future chemicals policy in the European Union*. [online]. 2003. [cit. 2017-09-20]. Dostupné na: https://assets.panda.org/downloads/1654reachcbafindoc.pdf
17. PICKVANCE, Simon, et al. *The Impact of REACH on Occupational Health, with a Focus on Skin and Respiratory Diseases*. European Trade Union Institute (ETUI). Brusel. ISBN 2-87452-008-X [online]. 2005. [cit. 2017-09-20]. Dostupné na: http://www.etui.org/fr/content/download/2070/49936/file/REACH_Sheffield_UK.pdf
18. RPA. *Assessment of the Impact of the New Chemicals Policy on Occupational Health.*Norfolk, Velká Británie [online]. 2003. [cit. 2017-09-20]. Dostupné na: http://ec.europa.eu/environment/chemicals/reach/pdf/background/finrep_occ_health.pdf
19. SIMON, Frédéric. *When science meets politics: the EU's impact assessment review.* In: EurActiv.com [online]. 7. 8. 2014 [cit. 2017-09-20]. Dostupné na: http://www.euractiv.com/section/science-policymaking/linksdossier/when-science-meets-politics-the-eu-s-impact-assessment-review
20. WITMOND, B. *The impact of REACH: Overview of 36 studies on the impact of the new EU chemicals policy on society and business.* [online]. 2004. [cit. 2017-09-20]. Dostupné na: http://www.eu2004-reach.nl/downloads/Comprehensive_Overview-v2.pdf
21. ZENKNER, Petr. EU: Deficit demokracie nebo legitimity? In: Euroskop. [online]. 26. listopadu 2008 [cit. 2017-09-20]. Dostupné na: https://www.euroskop.cz/44/9634/clanek/eu-deficit-demokracie-nebo-legitimity.

Kontaktní údaje

Ing. Šimon Buryan
Vysoká škola ekonomická, Fakulta Mezinárodních vztahů
Nám. W. Churchilla 4, 130 67 Praha 3
Tel: +420 731443262, email: simon.buryan@vse.cz

INOVACE V PRAXI CHEMICKÉHO PRŮMYSLU V EU

INNOVATION IN PRACTICE OF THE CHEMICAL INDUSTRY IN EU

Šimon Buryan

Abstrakt

Chemický průmysl je důležitým evropským produkčním odvětvím, které má zásadní roli v tom, že produkuje látky, které jsou potřebné jako suroviny a materiály pro další výrobce v EU. Toto odvětví zaznamenalo nízký růst v posledních letech, ačkoliv se rychle zotavilo z krize v r. 2008. Důležitým prvkem růstu odvětví jsou investice do inovací, které zaznamenaly specifickou dynamiku v posledních letech. Jejich snížení má vliv na nižší růst odvětví, ale je to způsobena nízkou návratností těchto investic. Lze tedy usuzovat, že růst tažený inovacemi v chemickém průmyslu je tedy náročný, protože by to vyžadovaly zvyšující se výdaje na inovace.

Klíčová slova: *chemický průmysl, EU, REACH, export*

Abstract

The chemical industry is an important European production sector, which plays a crucial role in producing the substances that are essential as raw materials and materials for other EU producers. This sector has experienced low growth in recent years, although it has recovered rapidly from the 2008 crisis. An important element of industry growth is investment in innovation, which has experienced a specific dynamism in recent years. Their reduction has the effect of lower growth in the sector, but is due to the low return on investment. It can therefore be assumed that the growth generated by innovations in the chemical industry is demanding as it would require increased spending on innovation.

Key words: *chemical industry, EU, REACH, export*

1 ÚVOD

Chemický průmysl je jedním z největších evropských výrobních odvětví. Toto odvětví má klíčovou roli v tom, že vyrábí produkty, které jsou potřebné jako vstupní suroviny a materiály pro další výrobní odvětví. Chemický průmysl tak poskytuje inovativní materiály a technologická řešení podporující konkurenceschopný průmysl členských zemí. Chemický průmysl vyrábí petrochemický průmysl, polymery, základní anorganické látky, speciality a spotřební chemikálie. Tento sektor prochází rychlými strukturálními změnami, které jsou vyvolány takovými skutečnostmi, jako zvýšená konkurence jiných zemí či rostoucí náklady (European Commision 2016).

Evropské chemické odvětví čelily nízkému růstu tržeb za posledních deset let a vysokým relativním nákladům na výrobu, které vedly k posunu výrobní základny do rozvíjejících se zemí. Řada producentů chemikálií v Evropě ukončila operace, protože výroba je pro ně nákladnější kvůli poměrně vyšším surovinovým a mzdovým nákladům. V posledních několika letech bylo v Evropě asi 144 chemických závodů uzavřeno nebo v současné době neprovozováno, což představuje 12% celkové chemické kapacity v Evropě (Ernst & Young 2016: 5).

Na druhou stranu Evropa nabízí silné a stabilní podnikatelské prostředí. Oblast poskytuje silnou infrastrukturu a vysoce efektivní veřejné instituce, které usnadňují legálně stabilní

prostředí pro provozování podniků. Relativně vysoká politická stabilita regionu spolu s vysokých příjmovým obyvatelstvem představuje zajímavou tržní příležitost. Odvětví je perspektivní také po stránce příznivého investičního prostředí díky vysoké technologické připravenosti, politikám podporujícím inovace a díky vyspělosti špičkových obchodů v různých odvětvích (Ernst & Young 2016: 5).

2 SOUČASNÝ STAV

Chemický průmysl dosahuje druhé nejvyšší přidané hodnoty na zaměstnance v EU po odvětví výroby léčiv. Toto odvětví si v EU připisuje 7 % celkové průmyslové produkce. Celkový obrat odvětví dosahoval v r. 2016 hodnoty 519 miliard Eur, to představuje přibližně 15 % světového obratu chemického průmyslu. (Evropská Komise 2016).

Obrat vyprodukovaných chemikálií v EU zůstává na přibližné úrovni, v r. 2005 dosahoval úrovně 458 miliard Eur. Klesá ale podíl členských zemí EU na celkové světové produkci především vlivem silného nárůstu v Asii. Především roste produkce v Číně. Prodeje chemikálií v Číně oproti r. 2005 vzrostly v r. 2015 na více jak sedmínásobek na úroveň 1410 miliard Eur (CEFIC 2016).

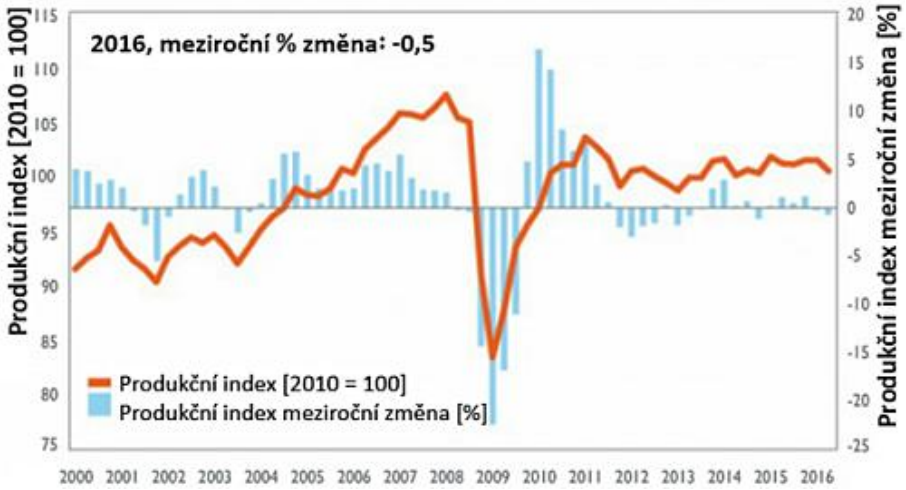
Konkurenční výhoda evropského chemického průmyslu se zřejmě snižuje, neboť USA a Asie vyvíjejí nízkonákladovou výrobu chemikálií. Navíc, s růstem poptávky, který se přemisťuje na rozvíjející se trhy Asie a Latinské Ameriky, se výrobní zařízení přesouvají do těchto regionů a výrobci chemikálií postupují podle tohoto trendu. Navíc přísné předpisy v evropském chemickém průmyslu, přísné ekologické daně a pomalé převzetí alternativní technologie vstupních surovin (břidlice apod.) přispívají k pomalému růstu průmyslu (Ernst & Young 2016: 3).

3 DOPAD KRIZE 2008

Chemické odvětví se relativně rychle zotavilo z hospodářské krize po r. 2008, nicméně celková produkce se nevrátila na předkrizovou úroveň a drží se relativně v období 2010 až 2016 blízko produkční úrovně z roku 2010, jak je patrné z obrázku 1 níže.

Obrázek 2 níže popisuje čtvrtletní vývoj produkce a podíl využití produkční kapacity odvětví. Na grafu je vidět jasný propad v době finanční krize po r. 2008 a následná stabilizace. Využití kapacity zůstává o 3,7 procentního bodu níže než v předkrizovém období. Chemická produkce v Evropské unii klesla v první polovině roku 2016 pouze o 0,5% ve srovnání se stejným obdobím roku 2015 (CEFIC 2016).

Obrázek 1: Vývoj produkce chemického odvětví v EU



Zdroj: CEFIC 2016

Odvětví zaměstnává v členských zemích přímo 1,16 milionu vysoce kvalifikovaných zaměstnanců. Tento sektor vytváří přibližně třikrát větší počet nepřímých pracovních míst. Přímá zaměstnanost v chemickém průmyslu EU klesá průměrně roční míru 1,7% od roku 1998 hlavně díky tlaku na úspor nákladů vlivem vyšší konkurenci a také díky pokračující automatizaci. V r. 1998 tedy v odvětví pracovalo o 380 000 zaměstnanců více, to představuje přibližně 1 % všech zaměstnanců v průmyslu (CEFIC 2016, Eurostat 2016).

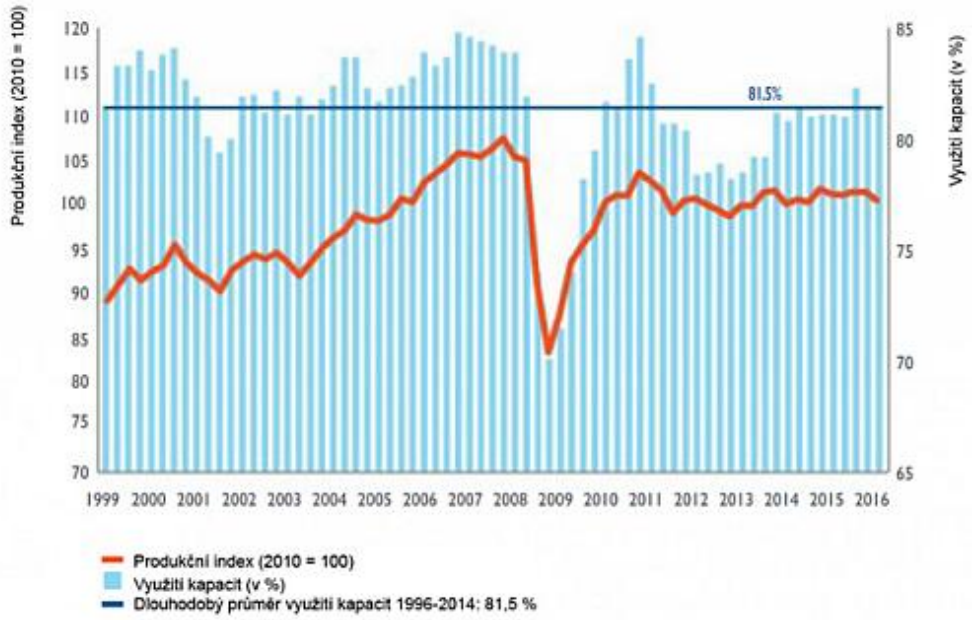
Odvětví vytváří přebytek obchodu v množství 44,8 miliard Eur. Jak plyne z grafu X níže, přebytek obchodu se po roce 2009 pohybuje kolem podobných nominálních hodnot. Přitom nominální výše exportu i importu rostou podobnými tempy. Vývoz chemického průmyslu členských zemí dosáhl v r. 2015 hodnoty 146,6 miliard eur. Dovoz chemikálií přitom byl v r. 2015 101,9 miliard eur (CEFIC 2016).

4 CHEMICKÉ ODVĚTVÍ A MEZINÁRODNÍ OBCHOD

Důležitý zdroj růstu odvětví představuje export, který mohl být podpořen uzavřením dohody o Transatlantickém partnerství TTIP. Nicméně s krachem jednání o této dohodě byly šance na zvýšení exportu oslabeny (CEFIC 2016).

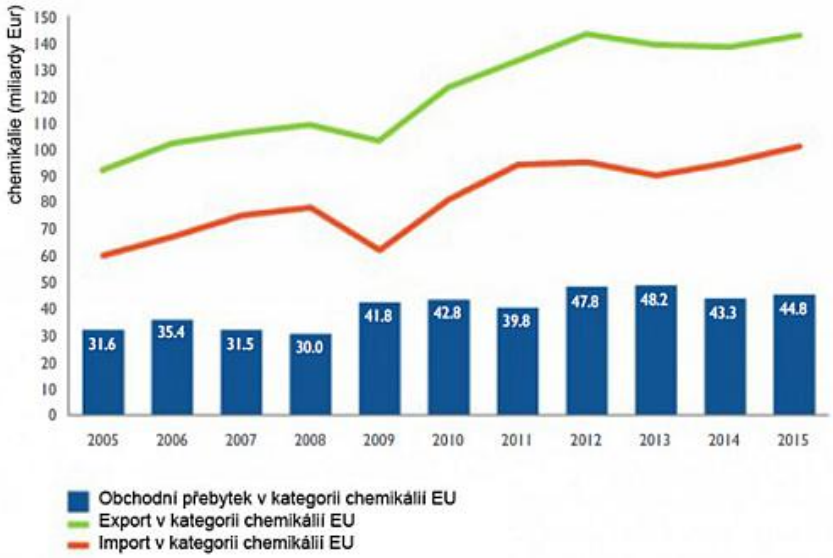
Obrázek 5 níže ukazuje strukturu dovozu a vývozu chemikálií členských zemí v r. 2015. Speciální chemikálie je nejvíce vyváženou položkou chemikálií a představuje třetinu celkového vývozu chemikálií v EU. Petrochemie byla druhým největším exportním odvětvím a přispěla k 26% celkového vývozu chemických látek v EU. Údaje o dovozu ukazují, že petrochemikálie byly s 38% největší dovozní položkou chemikálií. Speciální chemikálie a polymery, představovaly 22% a 19% celkového dovozu chemických látek. Analýza obchodu naznačuje, že chemický sektor EU zaznamenal obchodní přebytek pro polymery, speciální chemikálie a spotřebitelské chemické látky v roce 2015 (CEFIC 2016).

Obrázek 2: Vývoj produkční kapacity



Zdroj: CEFIC 2016

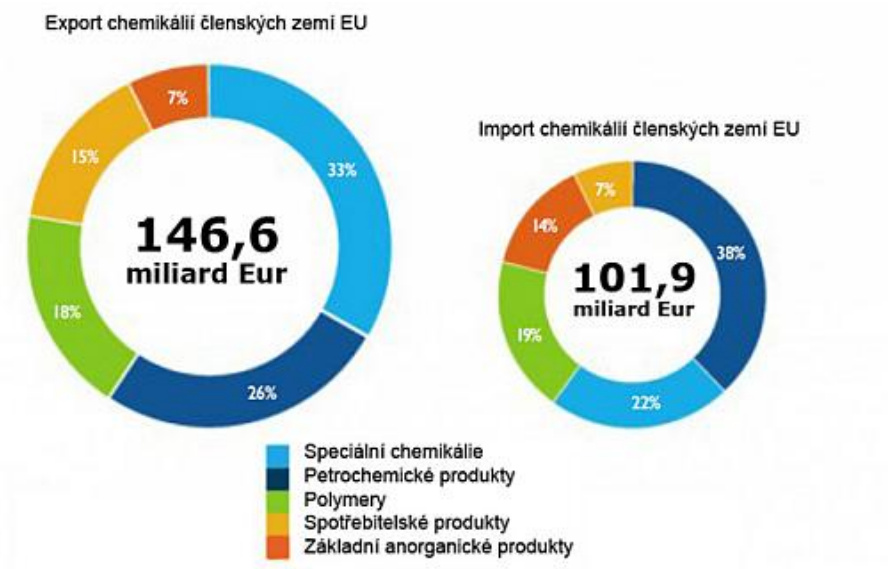
Obrázek 4: Vývoj obchodu



Zdroj: CEFIC 2016

Základní anorganické a petrochemické produkty však v průběhu téhož roku zaznamenaly obchodní deficity. Chemický průmysl závisí také na volném obchodu a otevřených trzích, a to jak pro své suroviny, tak i jako odbytiště pro své výrobky. Průmysl se stále více spoléhá na těsně propojené seskupení, které se pak podílejí na globálních hodnotových řetězcích (CEFIC 2016).

Obrázek 5: Obchod s chemickými produkty v EU v r. 2015



Zdroj: CEFIC 2016

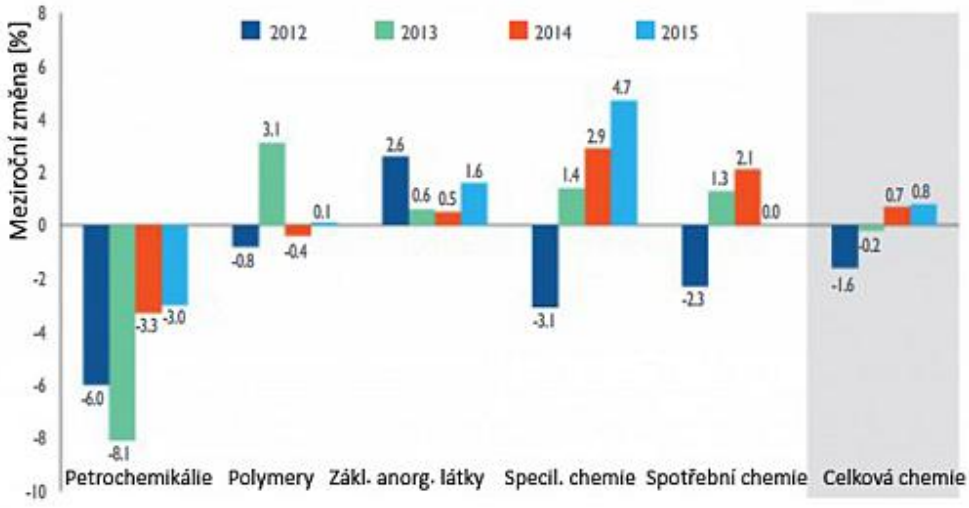
Detailní pohled na jednotlivé kategorie produkce lze sledovat úbytek odvětví specializující se na produkci chemikálií z ropy a zemního plynu (petrochemikálie), které zaznamenaly výrazný úbytek po r. 2012, jak je patrné z obrázku 6 níže. Jak bylo výše v této kapitole uvedeno, petrochemická produkce se spíše koncentruje do regionu Číny a Latinské Ameriky. Výraznější růstové tendence v EU po r. 2012 zaznamenala jen produkce základních anorganických látek a produkce specializovaných chemických látek.

5 INOVACE

Odvětví produkce chemikálií u EU je velmi inovativní a poskytuje řešení pro celospolečenské výzvy, jako klimatická změna, podpora zdraví a výživy. Vznikají nové formy průmyslové spolupráce mezi chemickými a jinými průmyslovými odvětvími, které pomáhají udržet výrobní pracovní místa v Evropě. Příkladem je spolupráce mezi zemědělským odvětvím a chemickým průmyslem při výrobě bio-plastů. Chemický průmysl díky výrobě inovativních materiálů silně přispívá k energetické účinnosti (CEFIC 2016).

Chemický průmysl je energeticky náročným odvětvím a tak jsou chemické podniky závislí na příznivých podmínkách a na energetické politice. Kromě toho je chemický průmysl vysoce regulovaným odvětvím. Ustanovené regulace chrání bezpečnost pracovníků, zdraví spotřebitelů a životní prostředí. Toto odvětví je tak vystaveno kumulativně většímu počtu nároků než ostatní sektory. Chemický průmysl členských zemí je také vystaven silnému konkurenčnímu tlaku. Řeší problémy, které zahrnují zvýšenou mezinárodní konkurenci, rostoucí energii a ceny vstupních surovin, tlak na zvýšení účinnosti zdrojů, nové předpisy a nutnost neustále inovovat (Evropská Komise 2016).

Obrázek 6: Vývoj tržeb dle kategorie produkce.



Zdroj: CEFIC 2016

Odvětví čelí řadě výzev. Jedním z klíčových problémů představuje přístup k surovinám a energii. Chemické odvětví je náročné na energie a čelí globální konkurenci. Všechno, co zvyšuje náklady na energii v EU vůči našim konkurentům, má velký dopad na konkurenceschopnost. Energetické náklady představují slabinu evropského průmyslu, zvláště ve srovnání s ropou a zemním plynem bohatým Středním východem a v poslední době se Spojenými státy, které mají výhodu břidlicového plynu (CEFIC 2016).

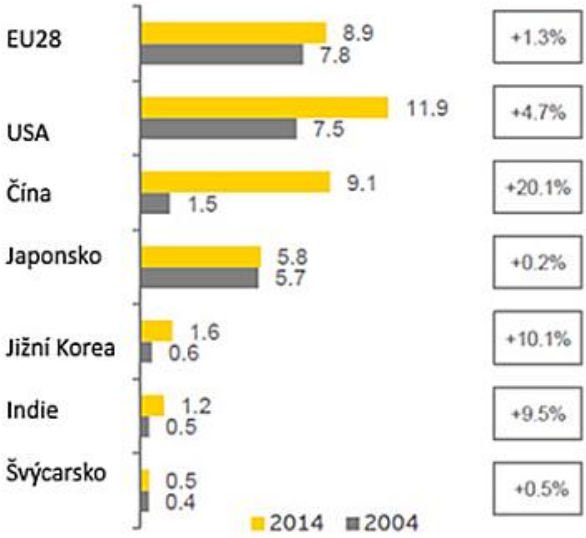
Průměrná intenzita výzkumu a vývoje je v chemickém průmyslu EU nad průmyslovým průměrem, většina chemického průmyslu je vystavena méně inovativním příležitostem a snižuje výnosy z výzkumu a vývoje. Výjimky jsou inovativní oblasti, jako jsou léčiva a biotechnologie, kde intenzita výzkumu a vývoje může přesáhnout 20 procent (Albach 1996: X)

Inovace ve firmách se odvíjí od velikosti podniků. Data ukazují, že procento firem, které inovují, se zvyšuje s velikostí firmy. Mírně méně než polovina firem s méně než 50 zaměstnanci inovuje, ve srovnání s 68% podniků s 50 až 499 zaměstnanci a 95% firem s více než 1000 zaměstnanci. Existuje jen malý rozdíl ve frekvenci inovací podle pod-sektorů. Nejdůležitějším cílem inovace je zvýšit nebo udržet podíl na trhu, který je důsledně sledován zlepšením kvality výrobků. Rovněž byla zjištěna velmi důležitá strategie řízení nákladů na základě cen (Albach 1996: XI).

Dalším klíčový aspekt pro podporu konkurenceschopnosti odvětví v dlouhodobém rámci představuje spravedlivý a nediskriminační přístup k biomase za konkurenceschopné ceny, jakož i příznivé právní a regulační rámcové podmínky.

Přestože chemický průmysl přispívá k ekonomickému rozvoji, tak evropský podíl světové produkce klesá a investice do nových kapacit jsou nízké. Pro podporu investic vyžaduje průmysl přístup k důležitým vstupům (zejména energii a surovinám) za konkurenční ceny, které odrážejí mezinárodní nákladové podmínky. Inovace se ale liší pro chemické společnosti s rostoucí konkurencí na poli získávání zákazníků a na úrovni nákladové konkurence. Růst investic do výzkumu a vývoje v Evropě mezi lety 2004 a 2014 byl však ve srovnání s Asií mnohem nižší, jak je patrné z obrázku 7. Růst je dokonce nižší než v USA, což je stejně jako Evropa rozvinutý trh. Na vině je především slabší míra růstu výdajů na výzkum a vývoj oproti míře růstu tržeb (Ernst & Young 2016: 6).

Obrázek 7: Změny výdajů na výzkum a vývoj 2004–2014 (Miliardy EUR)



Zdroj: Ernst & Young 2016: 6

Dále rozvoj odvětví vyžaduje lepší koordinaci mezi průmyslovými, klimatickými, environmentálními a energetickými politikami EU a jasněji formulované vazby mezi kumulativních nákladových účinků vyplývajících z těchto politik. Po stránce tvorby regulačního prostředí je pro rozvoj odvětví výhodný stabilní a předvídatelné regulační rámec pro zvyšování jeho konkurenceschopnosti (Evropská Komise 2016).

6 ZÁVĚR

Tato práce byla zaměřena na chemický průmysl v EU. Chemický průmysl patří mezi důležitá odvětví ekonomiky, jak po stránce zaměstnanosti, tak i po stránce návaznosti na další odvětví, protože vyrábí velké množství látek používaných v dalších segmentech ekonomiky.

Inovace v chemickém průmyslu jsou z důležitým motorem růstu odvětví, ale z toho důvodu, že došlo k jejich snížení v odvětví nezaznamenává tak velký růst. To se ale děje s ohledem na to, že míra návratnosti investic do výzkumu a vývoje je relativně nízká s výjimkou specifických odvětví výroby nanomateriálů a léčiv.

Poděkování

Výsledky této publikace byly dosaženy za pomoci štědré podpory výzkumného grantu VŠE Praha - FMV: číslo zakázky - IG271036, číslo projektu – F2/36/2016, název projektu - Metodologie ekonomického, politického a právního hodnocení zavádění environmentálních inovací do praxe.

Použitá literatura

1. ALBACH, Horsts. *Innovation in the European chemical industry*.In: WZB Discussion Paper, No. FS IV 96-26. [online]. 1996. [cit. 2017-09-20]. Dostupné na: https://www.econstor.eu/bitstream/10419/52604/1/232121133.pdf
2. ERNST & YOUNG. *Chemicals in Europe: the way forward.* [online]. 2016 [cit. 2017-02-02]. Dostupné na: http://www.ey.com/Publication/vwLUAssets/EY-chemicals-in-europe-the-way-forward/$FILE/EY-chemicals-in-europe-the-way-forward.pdf.

3. CEFIC. *Facts & Figures 2016 of the European Chemical Industry*. [online]. 2016 [cit. 2017-02-02]. Dostupné z: http://fr.zone-secure.net/13451/186036/publication/contents/pdfweb.pdf.
4. EUROSTAT. *Structural businmess statistics.* [online]. 2016 [cit. 2017-02-02]. Dostupné z: http://ec.europa.eu/eurostat/web/structural-business-statistics/data/datab ase.
5. EUROPEAN COMMISSION. *Chemicals*. [online]. 2016 [cit. 2017-02-02]. Dostupné z: https://ec.europa.eu/growth/sectors/chemicals_cs.

Kontaktní údaje

Ing. Šimon Buryan
Vysoká škola ekonomická, Fakulta Mezinárodních vztahů
Nám. W. Churchilla 4, 130 67 Praha 3
Tel: +420 731443262
email: simon.buryan@vse.cz

THE EURO AREA AND A FISCAL UNION IN THE CONTEXT OF IMPLICIT ASSUMPTIONS: WOULD IT SOLVE THE PROBLEMS OF THE SYSTEM?

EUROZÓNA A FISKÁLNÍ UNIE Z HLEDISKA IMPLICITNÍCH PŘEDPOKLADŮ: VYŘEŠILO BY TO PROBLÉMY DANÉHO SYSTÉMU?

Milan Bednář

Abstract

The Euro Area is still experiencing serious structural problems. Some analysts and policy-makers share the idea that an establishment of a fiscal union would help with the sustainability of the monetary union. This paper deals with the question whether this notion is justifiable. The creation of such fiscal union works with many implicit assumptions, we identified 15 of them. We conclude that there is not a single assumption which would not be seriously challenged. In fact, many of them would not be fulfilled. Moreover, the very design of the monetary union is producing asymmetric shocks, which is an issue that is rarely analysed. Following this argument, we claim that the current EMU / EU needs to focus on a clear system design which would not require serious state interventions rather than trying to fix the system by establishing a fiscal union and making it more complicated.

Keywords: *European Union, Euro Area, optimum currency area, fiscal union*

Abstrakt

Eurozóna stále trpí vážnými strukturálními problémy. Někteří analytici a vrchní političtí představitelé sdílejí názor, že vytvoření fiskální unie by pomohlo s udržitelností této měnové unie. Předkládaný článek se zabývá otázkou, zdali je toto tvrzení opodstatnitelné. Vytvoření funkční fiskální unie pracuje s mnoha implicitními předpoklady, přičemž jsme jich identifikovali celkem 15. Dospěli jsme k závěru, že neexistuje jediný předpoklad, který by nešlo zpochybnit. Ve skutečnosti by mnoho z nich nebylo splněno. Mimo jiné, samotná měnová unie vytváří asymetrické šoky. Tato problematika je v literatuře často opomíjena. Na základě tohoto argumentu tvrdíme, že současná EMU / EU se musí zaměřit na čistý systém vztahů, který by nevyžadoval vážné státní zásahy. Bylo by to vhodnější, nežli se snažit daný systém napravit vytvořením fiskální unie a tím jej učinit ještě složitějším.

Klíčová slova: *Evropská unie, Eurozóna, optimální měnová oblast, fiskální unie*

INTRODUCTION

Immediately after experiencing the worst effects of the global financial crisis, many economists shared the idea that the eurozone can only survive if it is complemented by a fiscal union (Fuest and Peichl 2012, p. 9.). Currently, the idea has been renewed as some politicians, such as the new French president, claim that a fiscal union or more broadly – deeper integration is the only way forward. Even some analysts claim that the recent crisis has shown that the eurozone needs to be complemented with a high degree of centralisation of fiscal transfers, otherwise, the system is unsustainable (Bénassy-Quéré, Ragot, and Wolff 2016, p. 12). Therefore, this paper deals with the question whether a fiscal union would really work and help to solve the issues of the Euro Area, such as its internal stability. Nevertheless,

the paper does not deal with the political aspects, i.e. we do not assess whether it is politically realistic or feasible to establish a fiscal union[1]. We rather study the ideal target – whether a fiscal union already in place would help the Euro Area to solve its issues of instability. We employ theoretical analysis. First, we need to define what is a fiscal union. Second, the concept needs to be linked with the Optimum Currency Area Theory which enables us basic analysis of the issue. Third, we list potential costs and benefits of a fiscal union in the Euro Area. Fourth, we provide an overview and discussion about implicit assumptions which are made for the fiscal union to work properly. Finally, we turn our attention to an issue of symmetric shocks, or in other words, we discuss the very design of the eurozone in the context of a fiscal union creation.

1 WHAT IS A FISCAL UNION

A fiscal union or robust centralisation of fiscal transfers between some regions would represent another step in the European integration process. It needs to have two important aspects: a mechanism for pooling resources to provide for expenditure, and a governance of such mechanism (Lara 2016, p. 301). In addition, a fiscal union in the case of the Economic and Monetary Union of the European Union (EMU) may but does not have to include five elements: fiscal rules, policy coordination and supervision, a crisis resolution mechanism, joint guarantee for government debt, fiscal equalisation and other mechanisms for transfers between countries, and a larger European Union (EU) budget and European taxes (Fuest and Peichl 2012). A fiscal union can be achieved by many ways, for example by creating a single finance ministry and finance minister, or even by emissions of euro-bonds (Hallett 2017, p. 188). It should be noted that the current integration architecture of the EMU or even the whole EU already contains some elements of a fiscal union: the EU budget, regulatory rules accompanying it at both national and supra-national level, EU's own revenue sources, harmonization of indirect taxes, and relevant monitoring practices.

2 WHY A FISCAL UNION IS FREQUENTLY MENTIONED AS AN ANSWER TO THE PROBLEMS OF THE EURO AREA

An ideologically neutral framework suitable to assess the feasibility of the euro for a group of countries is the Optimum Currency Area Theory, pioneered by R. Mundell (1961) and later expanded by R. McKinnon (1963) and P. Kenen (1969). The theory offers a set of criteria which can lead us to the answer. The criteria are divided into two groups: a) mechanisms to deal with the shocks: factor mobility (and ideally complemented by both price and wage flexibility), fiscal transfers; and b) preconditions to help absorb the shocks: openness, trade diversification, overall similarity of economic structure, homogeneous preferences. It is well-known that the Euro Area does not satisfy the indicators, so we cannot say that the EMU works properly[2]. A creation of a fiscal union (or centralised fiscal transfers) would help the Euro Area to get closer to the optimal currency area because, according to some authors, it could deal with asymmetric shocks and other issues which challenge the stability of the monetary union.

3 BENEFITS AND COSTS OF A FISCAL UNION

Allard et al. (2013, p. 23) argue that a robust centralisation of fiscal transfers would decrease the likelihood of future crises, their magnitudes, and systemic spillovers. If one country would experience severe depression and other states would have the capacity to help the depressed country, then they could simply shift its resources (fiscal transfers) and solve the issue. Other

[1] That is not a task for an economist.

[2] The criteria are unlikely to be completely met, however, the current structure of the eurozone breach them significantly.

benefits may include gains from better coordination of policies within the Euro Area (the system may be less prone to externalities arising from different policies) or increasing returns to scale. It may also help to strengthen the fiscal discipline within the area. A fiscal union may help make labour markets of the member countries more homogeneous through centralisation of unemployment benefits and pension systems (Cottarelli 2016, p. 4).

It has been both theoretically and empirically showed that a robust centralisation suffers from the issues of asymmetric information as mentioned by Hayek (1988), therefore the management would be rather rigid. Other potential cons include political costs (disputes), social costs (changes of regulation), and moral hazard (Allard et al. 2013, p. 23). There would be no guarantee that a fiscal union would strengthen the overall financial discipline. Moreover, history tells us that citizens will not accept taxation without representation, the union would suffer from a democratic deficit as it is the issue for the whole EU when officials were trying to make their decision-making "more efficient"[3]. This could lead to even worse government failures than we can currently observe on the national level. In addition, an introduction of new taxes could possibly lead to a higher financial and bureaucratic burden. The snowball effect which is already in place in the case of many EU institutions could be even stronger. Paradoxically, a further instability of the EMU could be achieved. Authors also frequently overlook basic problems of fiscal policy which suffers from various time lags. The statistical delay could be mitigated under the assumption that the member countries share a high degree of homogeneity when it comes to macroeconomic imbalances (Alessandrini and Fratianni 2015, p. 292). However, this assumption is evidently not fulfilled. Other delays include a lag in the recognition of a problem, decision lag, legislative implementation issues, and a delay when policy-makers can observe desired effects of a certain policy. Not surprisingly, demand shifts are very difficult to properly manage in practice.

4 IMPLICIT ASSUMPTIONS OF A VIABLE FISCAL CENTRALISATION

The path to a working monetary union by establishing robust centralisation of fiscal transfers lies on many implicit assumptions which are rarely analysed, therefore our paper deals with the issue. According to our research, the assumptions are as follows: appropriate size of the EU common budget, a satisfactory efficiency of fiscal transfers, sustainability of the common budget, democratic principles of the policy, learning from past mistakes, better or at least the same quality of fiscal governance, existence of a no-bailout clause in the common fiscal policy decisions, ability to manage a high degree of centralisation, precise and duly information, no negative spillovers of the common fiscal policy, the same initial situation of the member countries, independence between revenues and expenditures, the efficiency of fiscal regulation when determining rights and obligations, stabilisation effects of a common fiscal policy, and a notion that a fiscal union could replace other compensation mechanisms such as production factor, price and wage flexibility.

First, the common budget of the EU would need to be significantly expanded. Fiscal transfers would have to be much higher than in the history, we are possibly talking about tens of percentage points of budget revenues/expenditures to GDP. There is an unambiguous evidence that such fiscal transfers in the USA are enormous (Dreyer and Schmid 2015). Whether it would be possible to gather so many resources or not is an open question. Another assumption is about high efficiency of fiscal policy which would require fiscal multipliers to be quite high across the Euro Area. There is a large body of evidence (Von Hagen 2014, p. 24) which has concluded that the response of fiscal transfers to instabilities in the existing

[3] For simplification purposes, we can say that two concepts are competing with each other: sovereignty and differences in population distributions or other aspects of economic strengths of the member states.

federations is rather weak. In the USA, such transfers offset approximately 10% of asymmetric shocks between the states. In the case of Germany, the number is even smaller. If the multipliers would not be high enough, the EU common budget would have to be even more expanded. In addition, Vranceanu and Besancenot (2013) showed that the multipliers are negatively affected by the amount of public debt, especially when the ratio of public debt to GDP exceeds 150%. The more significant the EU budget would be, the more problems it could create. For example, higher-income earners should oppose fiscal union while low-income earners should support it because of the redistributions. However, these views among states are distorted due to their political leaders. Left-wing political parties are more inclined to support the creation of the fiscal union because of comparatively higher benefits of low-income earners, underemployed and unemployed individuals (Franchino, Segatti, and Zucchini 2016, p. 47-48).

Moreover, the more the decision is centralised and the farther is the decision-making from people or national states, the less accountable it is, and the higher the potential democratic deficit is. According to Lara (2016, p. 323), GNI-type contributions would be most suitable to get the appropriate budget revenues, which would also mean that the connection between tax collection and specific fiscal policy would be very loose. It would possibly create political disputes among the countries.

Others see fiscal unions as a way of sharing risks. This works with an assumption that there would not exist moral hazard. Nevertheless, the very creation of fiscal union would practically (and again) break the no-bailout rule as it is evident that the policy-makers would use it that way. The situation could be the same as before the crisis when there actually was one interest rate for all of the countries of the EMU and states with normally higher interest rate used the situation for their short-term benefits. We should not forget that the price of freedom is individual risk and responsibility.

Furthermore, Von Hagen (2014, p. 24) mentions that the main purpose of fiscal unions is not risk sharing. Instead, they should promote fiscal responsibility and the sustainability of public finances through its system of responsibilities and assignments. However, we are not aware of such evidence that a fiscal union would promote sustainability. Politicians, due to the political cycle, rather make short-term decisions. We have also seen it empirically when the current solutions to the crisis were of such nature and were being stuck without a notable progress. Politicians are still not willing to learn from past mistakes. In addition, the common monetary policy in the EMU also shares these aspects, even though it should be independent of politics. Furthermore, we can argue that the quality of fiscal governance could be lower, and the budget could be unsustainable because there would exist stronger motivations for politicians to pursue their self-interests. Also, higher rewards would possibly be available in the forms of money and influence[4] while the constraint would be weaker as the decisions would be less accountable because of political distance from the affected regions. The current EU budget is made sustainable; however, we can argue that this evidence is insignificant as it accounts only for approximately 1% of EU's GNI. Therefore, no economist should argue that the governance would definitely exhibit returns to scale.

Moreover, as we mentioned in the previous part, it has been both theoretically and empirically proved that heavy centralisation is impossible to manage. In addition, there are many data and policy lags. Also, fiscal policy tends to exhibit adverse spillovers as it may influence also

[4] Furthermore, particular interest groups are stronger on the supra-national level as their incentives are also greater.

other countries apart from the target region. The situation is even more complicated when we take into account the differences in the basic socio-economic variables of the EMU member countries. Drea (2016, p. 317-318) mentions that "retrofitting" greater political and fiscal integration to a monetary union that is already in place will be very difficult. The situation is problematic due to public antipathy towards greater integration, notable differences in current debt levels, relatively low economic growth and high youth unemployment in some of the EU member states. Furthermore, there is an evidence that the European fiscal rules have become over-complicated, inefficient and open to widespread manipulation (Drea 2016, p. 321). The EU decision-makers obviously failed in this area as the eurozone countries must deal with an increasingly complex set of fiscal rules[5] and its inconsistent implementation. In addition, the fiscal rules, in the situation of a low GDP growth, possibly serve as a serious barrier to further expansion in terms of GDP and employment (ibid., p. 318-319). These rules break national sovereignty, deny the functionality of automatic stabilizers, act as a pro-cyclical policy in recession and do not incorporate future trends such as population ageing. Woźniakowski (2017, p. 13) mentions how problematic is the current state of the Eurozone. The member states cannot use independent exchange rates to deal with the shocks, however, they also cannot flexibly use the fiscal policy as they are constrained by the EU's rules for national fiscal policies. Finally, we cannot say that a common fiscal governance could replace the need for production factor, price and wage flexibility when taking all of the arguments into account. The latter is possibly more important. It is obvious that seeking the creation of the fiscal union is not a viable answer to the structural problems of the Euro Area. The EU should rather maintain national fiscal autonomy and simplify its budgetary rules (Drea 2016, p. 319). Logically, countries which do not fulfil the OCA criteria well enough are left with only fiscal policy to stabilize their national economies, the policy needs to be kept decentralized. In addition, the causes of the economic crisis were national, therefore, solutions should also be national (Cózar 2017, p. 30).

5 SYMMETRIC SHOCKS IN THE EMU AND ITS IMPLICATIONS FOR THE CENTRALISED FISCAL POLICY

The whole fiscal union discussion is about making the eurozone more stable. The idea is neglecting the development of potential product and other main variables in periods of relative stability. Analysts are afraid of asymmetric shocks according to the OCA theory. However, economists usually do not mention how these asymmetric shocks occur. Let us use the example of the global financial crisis which started the European public debt crisis and led to the discussions about the creation of a fiscal union. It is obvious that, in this case, the initial shock (lower demand, higher unemployment, a challenge for public finance etc.) was mostly symmetric as it hit all the EMU countries. Its effects, in fact, produced the asymmetric responses in the Euro Area. Analysis of symmetric shocks bears the same or even higher importance when the monetary union is not functioning properly. The conclusion is that we need to focus on the very design and structure of the monetary union when assessing the feasibility of establishing mechanisms for centralised fiscal transfers. This way, we could deal with some of the asymmetric shocks and promote competitiveness at the same time. Arguably, there is no emphasis on the competitive advantage. A higher degree of integration – "stronger union" does not necessarily mean higher competitiveness. Common sense tells us that the design of the monetary union should be as clean as possible which means that the less we need to regulate it, the better. The more interventions, the higher is the risk of failure and the more significant are the implicit assumptions when it comes to centralised fiscal policy.

[5] Such as the Fiscal Stability Treaty or other rules which are trying to correct various imbalances within the region.

A strong euro has been a concern for many analysts and policy-makers. Strong exchange rate contributes to low inflation and low GDP growth rates, making the reduction of public and private debt more painful and also longer (Belke and Volz 2015, p. 61). It helped the inflation to get lower through its negative effect on import prices, which is an issue for the ECB and its target. Furthermore, countries suffering lack of competitiveness were not able to properly recover from the crisis. Therefore, these exporters are not in a good position and GDP growth has been dampened (ibid., p. 66). Stronger euro undoubtedly worsens competitiveness of some countries, especially the Southern wing of the European Union. Exporters from such countries as Greece, Spain, Portugal, Italy, and France currently find themselves in a tough spot as their exports are due to the strong currency internationally more expensive. Moreover, these imbalances are not created only on a state-to-state basis, the symmetric shock made by the uniform exchange rate also affects the sectoral structure of the countries because export and import capabilities significantly differ across individual industries. In addition, governments of the countries which are negatively affected may be encouraged to run expansionary policies. A common mechanism of fiscal transfers is unlikely to solve this problem.

According to Von Hagen (2014, p. 24), it is a mistake to think that a fiscal union would compensate for the loss of control over monetary policy at the national level. Such a mechanism would stabilise the individual economies around the average cyclical position of the monetary union. Technically speaking, it does not necessarily mean that this would lead to more stable output and employment in the member countries. In addition, the potential benefits of a fiscal union would depend on the nature of the shocks which make the monetary union unstable. Moreover, as the situations of various member states differ, the common fiscal policy would not be neutral and would have to be frequently used. Such characteristics tell that the system would not be sustainable. A devaluation is not a solution to the problem. The macroeconomic imbalances of the eurozone should be resolved primarily by structural adjustments. The EU should focus on competitiveness, not on how to "tweak" and "repair" the system which is obviously dysfunctional. This does not mean the end for the euro, however, it would mean a fundamental change in the structure of the eurozone, where only the well-performing economies with similar characteristics should belong. The solutions need to focus on the long-term. Finally, the endogeneity argument, which asserts that by reinforcing the integration process, the group of countries will become OCA, is shaky in its foundations and represents rather a utopian ideal. Policies should follow smaller steps when the final destination is uncertain.

CONCLUSIONS

The current system design of the EMU is unsustainable as mentioned by many authors. Combination of supranational monetary policy and national fiscal policies does not work. However, the idea that the current Euro Area can be "repaired" through creation of a fiscal union is unlikely to be correct. Costs likely outweigh the potential benefits of the centralised fiscal transfer system. Furthermore, some of the claimed benefits would be possibly non-existent. For example, there is no guarantee that the fiscal discipline and the quality of governance would get better. In fact, there is an evidence for rather the opposite. In addition, we explicitly stated assumptions upon which the fiscal union discussions are based. The assumptions are as follows: appropriate size of the EU common budget, a satisfactory efficiency of fiscal transfers, sustainability of the common budget, democratic principles of the policy, learning from past mistakes, better or at least the same quality of fiscal governance, existence of a no-bailout clause in the common fiscal policy decisions, ability to manage a high degree of centralisation, precise and duly information, no negative spillovers

of the common fiscal policy, the same initial situation of the member countries, independence between revenues and expenditures, the efficiency of fiscal regulation when determining rights and obligations, stabilisation effects of a common fiscal policy, and a notion that a fiscal union could replace other compensation mechanisms such as production factor, price and wage flexibility. We conclude that there is not a single assumption which would not be seriously challenged. In fact, many of them would not be fulfilled. We also claim that economists should carefully analyse the causes of asymmetric shocks as these can be produced by the very system design of the EMU.

To sum it up, fiscal policy, especially on a heavy centralised level, is very difficult to manage. The union could bring more unpredictability than stability to the system. Common sense tells us that countries which do not fulfil the OCA criteria well enough are left with only fiscal policy to stabilize their national economies, the policy needs to be kept decentralized. In addition, the causes of the economic crisis were national, therefore, solutions should also be national (Cózar 2017, p. 30). The current EMU/EU needs to focus on competitive advantages, long-term policies and a clear system design which would not require serious interventions rather than trying to fix the system by making it more complicated. If the structure of the eurozone does not change and the national fiscal rules imposed by the EU are not to be simplified, the euro has no chance of survival.

Sources

1. ALLARD, C.; et al. *Toward A Fiscal Union for the Euro Area*. IMF Staff Discussion Note, No. 13/09. 2013. 28 p. ISBN: 978-14-8430-737-3.
2. ALESSANDRINI, P.; FRATIANNI M. In the absence of fiscal union, the Eurozone needs a more flexible monetary policy. *PSL Quarterly Review*. 2015. Vol. 68, No. 275, pp. 279-296. ISSN: 2037-3635.
3. BELKE, A. H.; VOLZ, U. The Strong Euro: Challenges for the European Central Bank and Implications for the Global Economy. *AEI Insights*. 2015. Vol. 1, No. 1, pp. 53-68. ISSN: 2289-800X.
4. BÉNASSY-QUÉRÉ, A.; RAGOT, X.; WOLFF, G. Which Fiscal Union for the Euro Area? *Notes du conseil d'analyse économique*. 2016. Vol. 2, No. 29. pp. 1-12.
5. COTTARELLI, C. A European fiscal union: the case for a larger central budget. *Economia Politica*. 2016. Vol. 33, No. 1, pp. 1-8. DOI: 10.1007/s40888-016-0026-2.
6. CÓZAR, M. M. The only feasible fiscal union for the euro area. *European View*. 2017. Vol. 16, No. 1, pp. 23-32. DOI: 10.1007/s12290-017-0431-0.
7. DREA. E. 'Nobody told me we could do this': why fiscal union is not the answer to eurozone woes. *European View*. 2016. Vol. 15, No. 22, pp. 315-324. DOI: 10.1007/s12290-016-0406-6.
8. DREYER, J. K.; SCHMID, P. A. Fiscal Federalism in Monetary Unions: Hypothetical Fiscal Transfers within the Euro-Zone. *International Review Of Applied Economics*. 2015. Vol. 29, No. 4, pp. 506-532. ISSN: 02692171.
9. FRANCHINO, F.; SEGATTI, P.; ZUCCHINI, P. Attitudes toward a fiscal union in the Eurozone. In: FRANCHINO, F.; MARIOTTO, C. *Fiscal Governance of the European Union: Ideas, Integration Theories and Public Opinion*. Torino: Centro Einaudi, 2016, pp. 45-66. ISBN: 978-88-909417-9-5.
10. FUEST, C.; PEICHL, A. European Fiscal Union: What is it? Does it work? And are there really 'no alternatives'? *CESifo Forum*. 2012. Vol. 13, No. 1, pp. 3-9. ISSN: 1615245X.
11. HALLETT, A. H. Fiscal autonomy vs. fiscal federalism in the euro zone. *Economia Politica*. 2017. Vol. 34, No. 2., pp. 179-188. DOI: 10.1007/s40888-017-0066-2.

12. HAYEK, F. A. *The fatal conceit: The errors of socialism*. London: Routledge, 1988. 194 p. ISBN 0415008204
13. KENEN, P. B. The Theory of Optimum Currency Areas: An Eclectic View. In: MUNDELL, R. A.; SWOBODA, A. *Monetary Problems of the International Economy*. Chicago: University of Chicago Press, 1969, pp. 41-60.
14. LARA, A. Revenue for EMU: A Contribution to the Debate on Fiscal Union. *CESifo Economic Studies*. 2016. Vol. 62, No. 2, pp. 301–331. DOI: 10.1093/cesifo/ifw012
15. MCKINNON, R. I. Optimum Currency Areas. *American Economic Review*. 1963. Vol. 53, No. 4, pp. 717-725.
16. MUNDELL, R. A. A Theory of Optimum Currency Areas. *American Economic Review*. 1961. Vol. 51, No. 4, pp. 657-665.
17. THIRION, G. *European Fiscal Union: Economic rationale and design challenges*. CEPS Working Document, No. 2017/01. 2017. ISBN: 978-94-6138-564-2.
18. VON HAGEN, J. Governance of the Euro Area: Fiscal Union, Debt Union, Fiscal Freedom. *Wirtschaftsdienst*. 2014. Vol. 94, No. S1, pp. 23–27. DOI: 10.1007/s10273-014-1646-1.
19. VRANCEANU, R; BESANCENOT, D. The spending multiplier in a time of massive public debt: The Euro-area case. *Applied Economics Letters*. 2013. Vol. 20, No. 8, 758-762, pp. 758-762. DOI: 10.1080/13504851.2012.741674.
20. WOŹNIAKOWSKI, T. P. Why the sovereign debt crisis could lead to a federal fiscal union: the paradoxical origins of fiscalization in the United States and insights for the European Union. *Journal of European Public Policy*. [online]. 2017. pp. 1–20. DOI: 10.1080/13501763.2017.1285340.

Contact

Ing. Milan Bednář
University of Economics in Prague, Faculty of Economics
W. Churchill Sq. 1938/4, 130 67 Prague 3, Czech Republic
Tel: +420 777 298 064
email: xbedm15@vse.cz

INNOVATION STRATEGIES USED IN ECONOMIC ACTIVITY

Katarzyna Brożek

Abstract

The purpose of the article was to analyze available innovation strategies used by entrepreneurs in running a business activity. In total, the work has a theoretical character, with a significant part of the material characterized by a tabular or schematic form. The first component of the work is a concise introduction to the subject matter, then the second part of the paper discusses the aspects concerning the definition of the word strategy. The third - the main part of the article, based on the subject literature, is devoted to the analysis of innovation strategies. This part of the study has been divided into four sub-parts, including: comparative analysis of innovation strategies by B. Twiss and Ch. Freeman; the fifth and sixth generation innovation model; introversion vs extraversion strategies as well as innovative development strategies. The whole of the considerations is concluded with a summary.

Keywords: *economic activity, innovation, strategies*

1 INTRODUCTION

Innovation strategies are a key concept not only in all theories of innovation, but are the main subject of reflection on the functioning and development of enterprises. This is because innovations are currently the main determinant of achieving a sustainable competitive advantage [19]. This in turn enables enterprises to achieve differentiated benefits, which in consequence may lead to business success, manifesting itself as: the market leader.

The creator of the term innovation - J. A. Schumpeter, believed that entrepreneurs will be forced to innovate to gain a strategic advantage. The observed situation in the modern economic arena can only confirm the rightness of the statement. Innovation, by Schumpeter, is understood as the creation of new profitable solutions [18], [22]. However, P.F. Drucker in his scientific journals describes innovation as a specific entrepreneurial tool - an activity that gives resources new opportunities for wealth creation [6].

Bearing in mind the arguments quoted above, it should be stated that having multi-faceted knowledge in the field of innovation is extremely important for students of economic faculties, entrepreneurs as well as all market participants. This article is an attempt to explore one of many important issues of innovation, namely, it is about innovation strategies. The aim of the study was to thoroughly analyze the innovation strategies used in business. The determined goal was decided to achieve by using the following research methods: literature analysis and comparative analysis.

2 PRESENTATION OF THE STRATEGY TERM

When characterizing innovation strategies, it is necessary to define what a strategy is. The Polish dictionary mainly refers to the military strategy, but it can be found the definition of strategy as a forward plan of action [7]. The word strategy itself comes from Greek, derived from the phrases *startos*, which means the army and *agein*, and that is - to command. At the beginning of the functioning, the term *strategos* referred to the leadership of the army and the creation of a battle plan. Nowadays, looking at the free market one can get the impression that the enterprises strategy is a kind of creating a plan to fight against competition.

A. D. Chandler defined the strategy as long-term goals that are related to the essential steps, and these are an important element in achieving the adopted goals [11].
Harvard professor and long-term editor of Harvard Business Review, Kenneth Andrews, stated that strategy is a pattern of decisions that are made in the company, that set goals and form the main policy with plans [1].
R. W. Griffin wrote that the correct strategy focuses on the following factors:

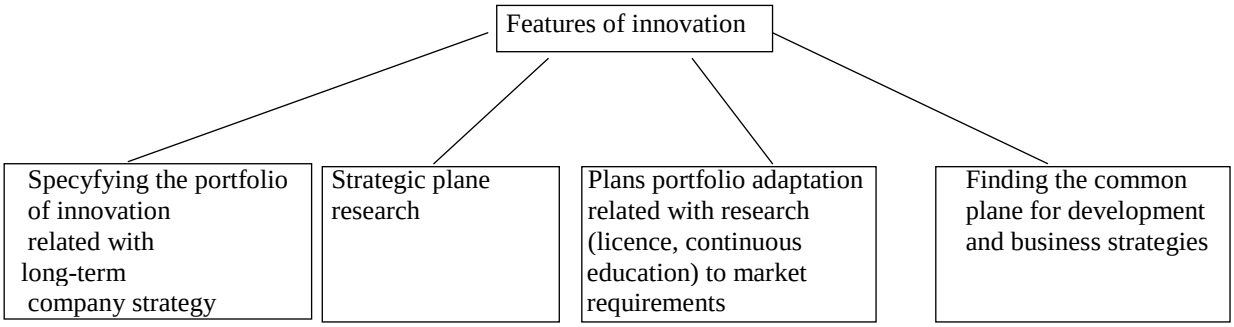
1. scope of the strategy - a set of markets on which the organization will compete;
2. distribution of resources - the way in which the organization distributes its resources among different uses;
3. a distinctive competence - what the organization does particularly well;
4. synergy - the way in which different areas of the company's activity complement or support one another [10].

M. Romanowska stated that the implementation of the strategy is a series of tactical and operational activities that define the company's approach to the issues of investment, marketing, structures or procedures. The effect of such an action is to build an appropriate strategy and verify its course [17].

3 ANALYSIS OF INNOVATION STRATEGY

If the innovation strategy is related to a product, then its planning and implementation operates on the level of two types of strategies. The first of them is connected with innovative guidance, consisting in continuous and systematic introduction of new products to the foreign market. The second one refers to imitation, therefore reaction to the innovator's actions [12].
Innovation is strongly associated with the strategy, as shown in the chart 1 below. It should be noted that in every aspect relating to the characteristics of innovation, strategy or planning is an indispensable element. This proves that well-thought-out management policy and long-term plans can bring about results in the form of innovative success.

Diagram 1. Features of innovation



Source: Own study based on: [13].

The strategy is a very important factor in building success, and its omission may lead in extreme cases to the collapse of the business entity.

3.1 Comparative analysis of innovation strategies according to B. Twiss and Ch. Freeman

B. Twiss characterized eight types of strategies to promote innovation. The first of these is the offensive strategy, which is characterized by high risk, but in the case of success, the company can achieve substantial profits. An important element is the research and development department, which is focused on innovation. The marketing and production departments also play a relevant role here. The opposite of an offensive strategy is a defensive one. There is both low risk and low profits. The company is focused on minimizing costs.

This strategy does not require the design and implementation of new products. The next element is the purchase of license, which allows the company to obtain technological innovations. The economic entity uses the experience, products and achievements of other enterprises, instead of working and developing their own. The strategy is effective against business entities that have large financial resources.

Another strategy described by B. Twiss is the strategy of avoidance, in which the enterprise tries not to compete with the entity operating in the same market. The author also drew attention to the creation of the market, which refers to the creation of new products thanks to which completely new markets are being built. This situation is determined by the use of technological innovations. The creator also distinguished an independent strategy, which he referred to improving the existing product, thanks to the use of innovation. The effect of this is to replace the old product from the market.
An important element is also the acquisition of highly qualified personnel by employing employees/specialists from competing entities, thanks to which the company can use the knowledge of a business rival.
The last strategy is the one referring to the acquisition of other business units, which may involve the acquisition or merger of smaller entities [21].

Ch. Freeman presented a different concept in which he included six types of strategies. Freeman's idea is presented in table 1.

Table 1. Types of strategies according to Ch. Freeman

The type of strategy	**Characteristics of the strategy**
Offensive	Its task is to become a leader thanks to innovations such as the introduction of a new product or the modification of an existing one. This strategy is based on the following factors (or their penetration): contacts with representatives of special knowledge, own research facilities.
Defensive	The company is not pioneering in the production of a new product / process, but at the same time it is trying to follow the wave of technical innovations without lagging behind. This type of strategy is active (like offensive strategy) for innovation. The company observes and follows innovation pioneers in order to eliminate mistakes made by innovation leaders. Thanks to this approach, an economic entity can take over part of the newly created market by introducing an alternative to an innovative product.
Imitating	It is associated with the delayed following an entrepreneur using an offensive strategy. It depends on market conditions in which an imitating economic entity functions. In this strategy, solutions proposed by a competitive company should be quickly implemented. The strategy builds the advantage by achieving lower costs.
Subsidiary	In other words, it is referred to as a satellite, associated with the acceptance by an enterprise of the position of an active co-operator or other type of position that characterizes the enterprise as a subordinate to a stronger economic entity. Practically no own research works are carried out, no attempt is made to implement changes with the model of other entities. The partner's knowledge is used.
Traditional	In this strategy the product / process is practically not modified. The strategy is used by companies that do not see the need to change the product / process, because customers are satisfied with the existing state and competition does not put pressure on changes.
Bargain	It is related to the use of opportunities that arise in the event of a gap in the modified production sphere. Such a gap has not been noticed so far by the competition. The company that first sees this situation can function well for a long period of time. An important factor is research and development and long-term planning.

Source: [9].

It can be seen that both B. Twiss and Ch. Freeman analyzed similar areas in part of their research. The table below presents the similarities and differences between the two authors.

Table 2. Comparative analysis of the concept of innovation strategy according to B. Twiss and Ch. Freeman

B. TWISS		CH. FREEMAN	
The type of strategy	**Key words**	**The type of strategy**	**Key words**
Offensive	Big risk, big profits	Offensive	Becoming a leader
Defensive	Small risk, small profits	Defensive	Following the pioneers
Purchase of a license	The use of knowledge of other enterprises	Imitating	Delayed following an offensive enterprise
Avoidance	No competition with other companies	Subsidiary	The use of partner's knowledge
Market creation	Introduction of new products creating the market	Traditional	No changes in the product
Independent	Improving an existing product	Bargain	The use of the gap in the modified production sphere
Acquiring qualified staff	Acquiring employees of other units		
Acquiring other entities	Mergers, acquisitions		

Source: Own study based on: [21]; [9].

The above comparative analysis shows that the common denominator for both researchers is the offensive and defensive strategy. However, it is related only to the convergence of names. B. Twiss and Ch. Freeman understood both strategies a bit differently. The first one referred directly to profits, while the second one to take a position on the market. A common ground can be the strategy of avoiding and using the partner's knowledge. In both cases, enterprises do not compete with each other on the market. It can be said that B. Twiss's theory is more aggressive, and two strategies may be testifying to this, which concern the employment of competition employees and the taking over of enterprises.

Within Twiss's offensive strategy, P.F. Drucker introduced the four types of it that are associated with being the strongest and taking a leadership position by the company. Undeveloped space that can be used should be searched. Another approach is to find and use a specialized ecological niche and economic change of properties of the product, market or industry [15].

3.2 Innovation model of the fifth and sixth generation

An interesting view on the innovation process was presented by R. Rothwell, who presented the fifth generation innovation model [5], [2]. It shows that innovation is a multifactorial process that operates due to the existence of dependencies between external and internal factors. These elements are co-organized by computer networks. A new factor appears in Rothwell's vision, namely computer technology. The characteristics of individual generations are presented in Table 3.

Table 3. R. Rothwell's innovation models

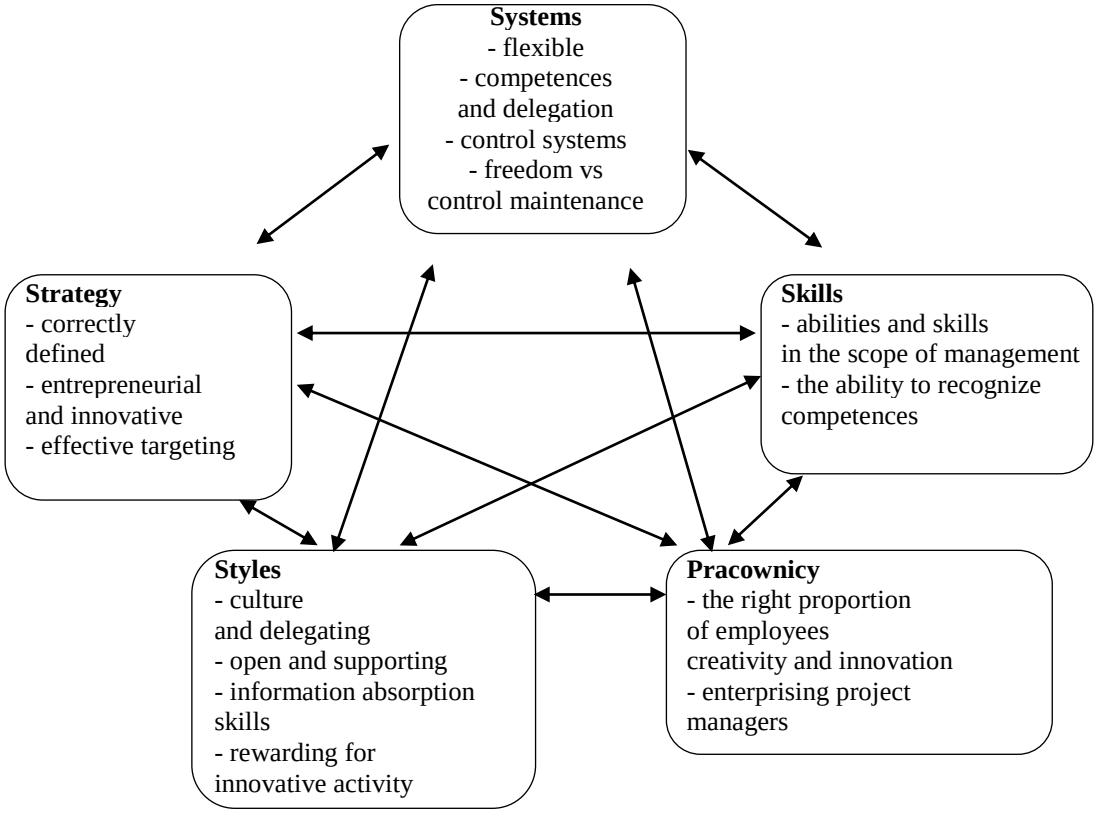
Generation	**Basic features**
First/Second	Linear model - supply model, demand model
Third	A related model, assuming the interaction of various elements and feedbacks of information

Fourth	Parallel model, internal integration of the business unit and cooperation with suppliers and recipients, emphasis on connections and alliances
Fifth	Integrated system based on network connections: flexible, based on response system related to the consumer, continuous innovation

Source: [20].

At the beginning of the 21st century, a significant change in the method of creating innovations by enterprises was noticed. The key is not only knowledge that is in the possession of an economic entity, but also the one that can be obtained from the environment. The new way of constituting innovation is referred to as the VI generation model. It is shown in Diagram 2.

Diagram 2. The VI generation model



Source: [4].

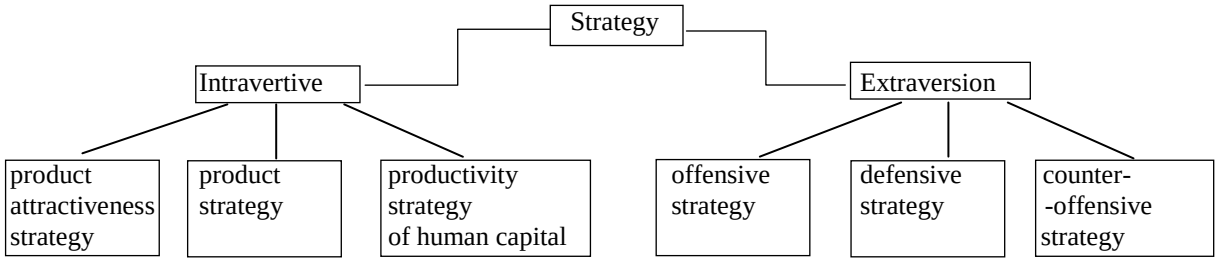
In the above-mentioned model, two elements are important: the internal potential of the company and the ability to acquire knowledge from the environment. The first factor is created by: systems, employees' skills, styles and strategies. It allows us to use the resources of the company. In the sixth generation model, it can be seen that there is a parallel interaction among all factors of the process of creating innovation.

3.3 Intravertive and extraversion strategies

In the space of research on innovations, there is also a division into two groups of strategies: intraversion and extraversion. The first one includes, among others, the product attractiveness strategy and product strategies that are important from the perspective of added value. The last element belonging to this strategy is the productivity of human capital and capital resources (resources involved, the so-called vector of resource development). The extraversion strategy refers to to an offensive strategy related to entities that have a special

position on the market, resulting from a significant competitive advantage (priority of using the sources of the innovative factor). In the aspect of extraversion strategy, there is also a defensive strategy that concerns market leaders protecting their position by striving to strengthen their position. The last element included in this kind of strategy is counteroffensive strategy, which leads (at a specific moment) to modification and development of products in order to prolong their life cycle in the market, development of "hybrids" that aim to associate elements of existing and new technologies, transition to the higher level of sales compared to a competitor, financial exhaustion of competitors, as well as "acquisition" of key personnel of competing enterprises.
The above groups are presented in the diagram below.

Diagram 3. Intravertive and extraversion strategy



Source: Own study based on the literature of the subject.

3.4 Innovative development strategies

Table 4 presents the synthesis of the typology of innovative development strategies. Therefore, the most important elements regarding the classification criteria, types of strategies were collected and there is also a short description of them.

Table 4. Synthesis of the typology of innovative development strategies

Classification criteria	Types of strategies	Characteristic
The goals of innovation	product, process and organizational	new products, new functional features, new processes, modernization of old processes, implementation of new organizational systems, increase in management efficiency
Factors of innovation	R + D	development of own R & D base, cooperation with external R & D units
	purchase of a license	purchases of domestic and foreign licenses
	staff training	creating own intellectual potential, occasional education; shortening the innovation cycle
Ways of implementing innovations	pioneer	isolated, bound, market leader
	imitative	isolated, bound, cost leader
A reference to ecological problems	cost reductions	cost reductions at the producer and operating costs at the customer's
	improving quality	production of ecological products
	greening	greening of products, processes, packaging
Market	customer education	permanent, occasional education, constant contact with the client, convenience in purchasing consumer goods, shares of "eco" products
	searching for new markets	
	maintaining old markets	

Source: [3]; [23].

As we can see, each of the abovementioned strategies does not function spontaneously, because specific relationships can be noticed among them. The enterprise (sector), defining and implementing a given innovation strategy, determines the fundamental factor in its implementation. The consequence of such a process is the fact that the remaining factors of other strategies are subordinated to the overarching strategy [8].

In implementing the development strategy, it is important to analyze both the main and strategic goals. Establishing them will allow us to manage our innovation strategy in a better and more effective way. An example will be the analysis of objectives (table 5) in the Polish economy for the Mazowieckie Voivodeship, which was selected due to the highest rate of innovation [14].

Table 5. Strategy goals tree

MAIN OBJECTIVE An increase in Mazovian innovation, leading to acceleration of growth and increased competitiveness on the EU scale		
STRATEGIC OBJECTIVE I Increase and strengthen cooperation in innovation and innovation development processes	**STRATEGIC OBJECTIVE II** An increase in internationalization focused on the development of innovation in the Mazowieckie voivodship	**STRATEGIC OBJECTIVE III** Increased effectiveness of support and financing of pro-innovation activities in the region
STRATEGIC OBJECTIVE IV	Shaping and promoting pro-information and pro-entrepreneurial attitudes conducive to creativity and cooperation	
STRATEGIC OBJECTIVE V	Development of the information society	

Source: [16].

In this case, the main goal will only be realized if the second-order goals are met, namely the strategic goals. Three of them refer to processes that effect in increasing innovation. The other two focus on providing the potential for innovation, which is built through shaping attitudes and developing knowledge in society. It is worth adding that each of the strategic goals has also assigned an operational objective.

4 SUMMARY

Many modern enterprises, regardless of their size, owe their success to a large extent to innovativeness, and what is absolutely essential with it, is also an appropriate innovation strategy. Increasingly, the competitiveness of economic entities, and especially their competitive advantage, is determined not only by the possession of specific assets, but above all by the ability to use knowledge, experience, skills and technologies in such a way as to offer potential clients the better and more innovative products or services they desire.

It is important to approach system strategies in a systematic way. The result of such action is the integration between analysis and strategic planning. The sphere of these two elements is related to the company and its surroundings, which in effect provides a fundamental analysis of possible strategic situations.

The task of each company is to create a strategy for building and planning innovations, by analyzing development opportunities in obtaining new results and through investments in human capital and new technologies, etc.

It is worth paying attention to the fact that business strategies are an important element of innovation. Strategic management is a very important aspect in the functioning of entities on

the market, because it requires advanced technology. Innovations implemented in such entities lead to changes in the model of implementation and investment of economic resources.

Summing up, on the basis of the theoretical analysis, it can be stated that the issue of innovation is multidimensional and extremely important for business entities operating on the market. In addition, when researching innovation strategies, it should be noted that there is still a need for further scientific research aimed at deepening the existing knowledge in this field.

Sources

1. ANDREWS, K. *The Concept of Corporate Strateg.* New York: Dow-Jones Irwin, 1980. p. 28 ISBN 978-0-256023-71-8.
2. BESSANT, J. R., VENABLES T. (ed.), *Creating Wealth from Knowledge: Meeting the Innovation Challenge*, Cheltenham: Edward Elgar, 2008. p. 7 ISBN 978-1-84720 3-48-9.
3. BIAŁOŃ, L. *Typologia innowacyjnych strategii*, In: JASIŃSKI, A. H., KRUK M. (ed.), *Innowacje techniczne i zmiany strukturalne w procesie transformacji polskiej gospodarki*. Bialystok: University in Bialystok, 1999. p. 21 ISBN 978-8-387884-17-8.
4. BREM, A. *Linking innovation and entrepreneurship – literature overview and introduction of a process-oriented framework,* In: „International Journal of Entrepreneurship and Innovation Management", vol. 14, no. 1/2011. p. 14 DOI: 10.1504/IJEIM.2011.040822.
5. DEKKERS, R. *(R)Evolution: Organizations and the Dynamics of the Environment*. Washington: Springer, 2005. p. 473 ISBN 978-0-387-26159-1.
6. DRUCKER, P.F. *Innowacja i przedsiębiorczość. Praktyka i zasady*. Warsaw: PWE, 1992. p. 39 EAN: 8320808707.
7. DUNAJ, B. (ed.) *Słownik współczesnego języka polskiego*. Warsaw: Wydawnictwo Wilga, 1996. p. 1067 EAN: 8390936631.
8. FORTUIN, F. *Strategic alignment of innovation to business*. Wageningen: Wageningen Academic Publishers, 2007. pp. 28-30 ISBN 978-90-8686-056-2.
9. FREEMAN, Ch., SOETE, L. *The Economics for Industrial Innovation.* Cambridge: MIT Press, 1997. pp. 334-350 ISBN 978-02-6256-113-6.
10. GRIFFIN, R.W. *Podstawy zarządzania organizacjami*. Warsaw: PWN, 2005. pp. 118-119 ISBN 978-83-011-6471-3.
11. CHANDLER, A.D. *Strategy and Structure*. Washington: Beard Books, 2013. p. 13 ISBN 978-1614275084.
12. KOSIŃSKA, E. *Marketing międzynarodowy. Zarys problematyki*. Warsaw: PWE, 2008. p. 191 ISBN 978-83-208-1788-1.
13. MAREK, S., BIAŁASIEWICZ, M. *Podstawy nauki o organizacji. Przedsiębiorstwo jako organizacja gospodarcza*. Warsaw: PWE, 2011. p. 290 ISBN 978-83-208-1934-2.
14. PARP, *Regionalne systemy innowacyjności*. Warsaw: PARP, 2013. pp. 54-56
15. PENC, J. *Role i umiejętności menedżerskie: sekrety sukcesu i kariery*. Warsaw: Difin, 2005. pp. 183-184 ISBN 83-7251-512-3.
16. *Regional Innovation Strategy for Mazovia up to 2020,* Annex to Resolution No. 23/15 of the Mazowieckie Voivodship Assembly of 16 March 2015, Warsaw 2015. p. 26

17. ROMANOWSKA, M. *Zarządzanie strategiczne firmą*. Warsaw: Centrum Informacji Menedżera, 1995. p. 3 ISBN 83-86210-26-5.
18. SCHUMPETER, J.A. *Socjalizm. Kapitalizm. Demokracja*. Warsaw: PWN, 2009. p. 162 ISBN 978-830115-974-0.
19. SIERADZKA, K. *Innovativeness of enterprises in Poland*. Acta Univarsitatis Agriculturae et Silviculturae Mendelianae Brunensis. 2013. Vol. LXI (7). pp. 2729-2735 ISSN 1211-8516. DOI: 10.11118/actaun201361072729.
20. TIDD, J. *A Review of Innovation Models*. London: Imperial College, 2006. p. 8
21. TWISS, B. C. *Managing Technological Innovation*, London: Pitman, 1992. pp. 1-39 ISBN 978-02-7303-795-8.
22. WOLAK-TUZIMEK, A., DUDA, J., SOŁOMA, A., LAMENT, M. *Zarządzanie małym i średnim przedsiębiorstwem. Wybrane problemy*. Radom: Naukowo-Wydawniczy Spatium, 2015. p. 23 ISBN 978-83-62805-57-0.
23. WOLAK-TUZIMEK, A. *Innovative Activities of Small and Medium-Sized Enterprises in Poland*, In: The 10th International Days of Statistics and Economics, Prague: Melandrium, 2016. pp. 2056-2065 ISBN 978-80-87990-10-0.

Contact

M.Sc. Katarzyna Brożek, Ph.D. Student
Kazimierz Pulaski University of Technology and Humanities in Radom
Chrobrego 42/10, 26-600 Radom, Poland
Tel: +48 504 174 290
email: k.brozek@uthrad.pl

SUSTAINABLE DEVELOPMENT AS PRIORITY FOR BUSINESS

Natália Tarišková, Zuzana Skorková

Abstract

The objective of the paper is to support current stage of thinking about business models for sustainable development not only for public sector, but also for all subjects of business (profit or non-profit, individuals). We are living in a time of immense challenges to sustainable development. Paper brings together an overview of both classical and newer business management models useful for understanding sustainable development challenge. Within selected business models are strengthened the conceptual explanation and prediction how company function and are popularly used for guiding towards implementing sustainable development changes. Modern society increasingly sets paradoxical challenges: think globally and act locally, make a profit while being sustainable, maintain a convincing grand strategy and yet be responsive and agile, nurture innovation while maintaining tradition, encourage diversity as well as a coherent culture. To some, these pairs of goals may seem to present irreconcilable differences. To us, they are reconcilable dilemmas. Final challenge of the paper is to avoid a zero-sum game, where one entity wins and one loses; to reconcile dilemmas through a creative and intellectual dialogue, creating a win-win situation.

Key words: *Sustainable Development Goals, Business Models, Reconciliation of Business Dilemmas*

1 INTRODUCTION

On September 25th 2015, all 195 member countries of the United Nations adopted a set of 17 Sustainable Development Goals (SDGs) to end poverty, protect planet and ensure prosperity for all as part of their new global Agenda 2030. Achieving these goals will require the concerted efforts of governments, the business sector, society, and individual citizens. Innovative leadership and management will be essential for organizations in any sector to integrate these development goals into strategic plans and operational activities in service of realizing the 2030 aspirations. The integration of SDGs into business strategies challenges traditional business practices, including those that already address sustainability. Business companies will need to aspire to and imagine much bolder approaches. What will these look like? How can managers undertake them? And how can management research contribute to this aspirational agenda?

2 BUSINESS AND THE SUSTAINABLE DEVELOPMENT GOALS

Business managers increasingly recognize that addressing sustainability issues delivers benefits to society, the environment, and to companies themselves, through reduced costs and risks of doing business, increased brand reputation, increased attractiveness to talent or increased competiveness (Bonini & Bove, 2014: Kiron at el., 2013; Kiron at al., 2012; Haanaes et al. 2011; UN Global Compact & Accenture, 2013).

Many companies have started to management for the triple bottom line by seeing to simultaneously create economic, ecological and social value. However, in practice, business sustainability is often strongly aligned with economic advatages for the business themselves, the business case for sustainability, while being much less aligned with solutions for the challenges we face globally, as captured in the UN SDGs.

There is an opportunity to explore the role of business in sustainable development through a fundamental change in perspective societal goals that cannot be addressed adequately through business as usual (Dyllick&Muff, 2016). The SDGs raise a number of questions

regarding the roles and engagement of all kinds of companies, not just businesses, across all levels of analysis of interest to management scholars. Management reserach has begun to tackle some of these questions, as evidenced by a growing interest on societal grand challenges (George, Howard-Grenville, Joshi, Tihanyi, 2016) and wicked problems (Rittell, Weber 1973). Scholars examine how complex institutional arrangements and organizational configurations both perpetuate and mitigate problems like climate change (Schussler, Ruling, Wittenben, 2014) inequality (Mair, Wolf, Seelos, 2016) and social impact on supply chain practices (Kim, Davis, 2016). Others have drawn attention to potential solutions movement theory (Luo, Zhang, Marquis, 2016), framing (Ansari, Wijen, Gray, 2013), or robust action (Ferraro, Etzion, Gehman, 2015). Accounts also explore how individuals frame desired changes for their peers (Bansal, 2003; Howard-Grenville, Nelson, Earle, Haack, Young, 2017) and document the risks involved (Sonenshein, DeCelles, Dutton, 2014, Whiteman, Cooper, 2011). At the individual and group level of analysis, insight into issues raised by the SGDs have been gained through research on stress, coping, and well being (Gaines, Jermier, 1983; Xie, Johns, 1995), income (Judge, Piccolo, Podsakoff, Shaw, Rich, 2010; Leana, Meuris, 2015), justice (Colquitt, Conlon, Wesson, Porter, Ng, 2001), and status differences (Marr, Thau, 2014; Pettit, Young, Spataro, 2010). This research has emphasized the positive consequences of stress free work, higher income and status, and fair treatment, underscoring the individual and organizational benefits that accrue from tackling the SDGs. Following are those 17 SDGs.

Table 1: Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3. Ensure healthy lives and promote well-being for all at all ages
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5. Achieve gender equality and empower all women and girls
Goal 6. Ensure availability and sustainable management of water and sanitation for all
Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10. Reduce inequality within and among countries
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12. Ensure sustainable consumption and production patterns
Goal 13. Take urgent action to combat climate change and its impacts*
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Source: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

3 BUSINESS MODELS

The goal of this paper is focused on applying powerful models and theories to help individuals and companies become better sustainable and profitable, alltogether, and it brings together an overview of both classical and newer business management models. Attached models conceptually explain or predict how organizations function and are popularly used for guiding companies towards implementing some form of changes linked to keeping sustainable.

For each model is povided an overview, identifying its essence and results, but also supplying insights into its uses and implementation and comments on its place in social science. In addition, per business area it presents a reflection on selected models to help users consider the implications of how our world perspective affects how and when models are used, and thereby may help challenge us to consider this critically before, during and after implementation of the models.

Model 1: Stakeholder Management, Edward Freeman, 1984

Stakeholder Management Model determines, and to what extent, the success of the company. Stakeholder theory, as developed by philosopher and professor of business administration R. Edward Freeman, holds that sustainability depends on different relationships with different group of stakeholders. It contrasts the dominant view of the end of the 20th century that corporations should basically only care for their shareholders. Stakeholders theory is thereby an ethical and organizational view of company management as the value creation is formed by the effectiveness of the management to run the business. Effectiveness is seen as to create as much value as possible, for as many relevant stakeholders as possible. If stakeholder theory is to solve the problem of value creation and trade, it must show how business can be described through stakeholder relationships.

The model justifies the identification and analysis of various stakeholders of a copany, mainly through stakeholder analysis and stakeholder mapping. After doing so, a strategy can be developed for each group of stakeholders. Stakeholder analysis aims to identify the individuals or groups that are likely to affect or be affected by company behaviour, and sorts them according to projected impact.

A stakeholder is any person or organization that can be impacted by, or cause an impact on, the action of the subject of analysis, typically an organization. Stakeholders can be categorized as: primary stakeholders being directly and mostly affected by, or having the most impact on, the company; secondary stakeholders being affected by, or having indirect impact on, the company and key stakeholders, the influentials and decision-makers, belonging to primary or secondary stakeholders. There are various approaches to ranking the influence and interests of stakeholders, including Mendelow's power interest grid; Murray-Webster and Simon's three dimensional grouping of power, interest and attitude; Bourne's Stakeholder Circle; and on a more detailed level – Moreno's sociogram.

The outcome of stakeholder analysis creates awareness and a plan for how to manage various stakeholder relationships. It helps to identify strengths, weakness, opportunities and threats in various in various stakeholder relationships and to allocate resources accordingly. It also gives a view of the company's contribution to the benefits of the separate stakeholders. This analysis is to be used to define how the interests of those stakeholders should be addressed in a project plan, policy, program, or other action. The better all the interests of all stakeholders are met, the more support, and less protest, a company can expect for its ideas and actions. The model helps to analyse and map, but offers no guidance as to which stakeholders typically are more important to a company that others.

Model 2: Seven Levels of Sustainability, Richard Barrett, 1998

The model describes how may a culture that satisfies the needs of all stakeholders be created. According to entrepreneur and author Richard Barrett, the world does not show enough leadership to make our environment more sustainable. Barrett holds that improved consciousness of this challenge will help to change the world for the better. To this goal, Barrett adapted Maslow's hierarchy of needs into seven levels of consciousness. Barrett follows Maslow in presuming that people have a hierarchy of needs, being: physiological, safety, love and belonging, self-esteem and self-actualization. Barrett states that when the deficiency needs or hygiene factors (physiological, safety, love and belonging) of individuals are met, there is no sense of lasting satisfaction; there is only a sense of anxiety if these needs are not met. However, the desire to know and understand that comes with self-actualization can be perceived as growth needs: when these are fulfilled, they engender deeper levels of motivation and commitment. The more conscious individuals and groups are, the more they are inclined towards, and capable of, making their environment more sustainable.

Barrett suggests that individuals, companies or even communities and societies, should assess their entropy (the degree of dysfunction in a system), the alignment of values in the group and the resonance among stakeholders. Based on this assessment, an improvement program is to be undertaken, whereby people are supported to increase their level of consciousness.

Companies that follow Barrett's model for improvement are supported to become full-spectrum company, displaying all the positive attributes of seven levels of company's consciousness. They should ultimately master:

1. Survival consciousness, by focusing on financial stability and employee health and safety.
2. Relationship consciousness, by focusing on open communication, employee recognition and customer satisfaction.
3. Self-esteem consciousness, by focusing on performance, results, quality, excellence and best practices.
4. Transformation consciousness, by focusing on adaptability, innovation, employee empowerment, employee participation and continuous learning[1].
5. Internal cohesion consciousness, by developing a culture based on a shared vision and shared values that engender a companywide climate of trust.
6. Making a difference consciousness by building strategic alliances with likeminded partners, developing mentoring, coaching and leadership development programs for their managers and leaders, and embracing environmental stewardship.
7. Service consciousness, by focusing on social responsibility, ethics, global thinking, and keeping a long-term perspective on their business and its impact on future generation.

The value of the Barrett model arguably lies in trying to operationalize sustainability in a comprehensive and appealing way. This allows a large audience to structure work on becoming more sustainable and to test its applicability fairly easily.

Model 3: The Seven Faces of Mount Sustainability, Ray Anderson, 1999

The value of the Anderson's model lies in trying to find the answer how can industry leaders overcome a take-make-waste industrial system and reduce its environmental footprint towards zero.

[1] Skorková (2014) provided a deep analysis of theoretical approaches used in talent management: SKORKOVÁ, Z. (2014) Talent management - theoretical approaches to the definition of talent. EDAMBA 2014 : proceedings of the international scientific conference for doctoral students and young researchers : 13th - 14th November 2014, Bratislava, Slovak Republic. Bratislava: Publishing House EKONÓM, 2014, pp. 510-518.

In his book The Ecology of Commerce: A Declaration of Sustainability (1993), Paul Hawken points as the negative and destructive impacts industries have on the planet. He demands that industry leaders initiate a change to create a restorative economy that will reinvent the existing take-make-waste industrial system. Andersen worked on this vision and in 1995 set in motion a mission of change at his company (Inerface). Since then, attempts to climb Mount Sustainability and transform the company's way of doing business have been made. He understands sustainability as a contingent, healthy, balanced coexistence into the indefinite future of the technosphere (human a industrial systems) and biosphere (nature). Currently, the technosphere is growing and extracting excessively from the biosphere, resulting in climate disruption and fading biodiversity for future generetions.
Mission Zero therefore calls for a sustainable redesign of the company, resulting in zero negative impact on the earth, by engaging in the following main pillars: ecological footprint reduction – renewable sourcing of energy, raw materials and reduction of waste and emissions, product innovation – innovation of new technologies and redesign of products and processes and corporate culture change – integration of values and norms for corporate citizenship in corporate belief and identity.
Scaling Mount Sustainability requires action on seven ambitious fronts: eliminate waste, benign emissions, renewable electricity, closing the loop, resource-efficient transportation, sensitizing stakeholders and redesign commerce.
These means can be adapted by other organizations, but they require an attempt tailored to their own processes and strategies. The underlying requirement for the success of Mission Zero lies in the change of mindset that integrates shareholder value and sustainability. Full or intrinsic commitment of the company is required if such a fundamental process of change is to be undertaken. We will be doing well…very well…by doing good. That is the vision of Ray Anderson. In 2009, two years before he passed away, he estimated his company was over halfway towards meeting his goals. By complying with standards set by examples such as Mission Zero, companies can be enabled to make a profit while also excelling in sustainability. Following Ray Anderson's vision of a sustainable corporate design, the ultimate achievement would be that a company takes only what is renewable and contributes to the global equality of both the technosphere and the biosphere. In such a state, the take-make-waste system would have been overcome.
This approach to transforming company cannot be seen as a model that can be easily applied to, or implemented by, other organizations. Mission Zero is an approach that has been tailored to Interface's processes and strategies. Other companies can therefore take this as an example, but will have to find their own way of going about pollution prevention, product redesign and so on.
However, a first step towards sustainability could be made by recognizing the corporate citizenship of one's own organization, and thereby its responsibility beyond production. This major corporate culture change may hide challenges that are difficult to overcome and require strong leadership.
There is the possible danger that companies might abuse the commitment for short-term PR purposes only, while avoiding an intrinsic and real transformation.

Model 4: The Bottom of the Pyramid, C. K. Prahalad, 2002

How can one create wealth by doing business with the 4 billion people at the bottom of the financial pyramid?
In economics, the Bottom of the Pyramid is the largest but poorest socio-economic group, comprising around four billion people who live on less than a few dollars per day. Conventional logic holds that there is little business to be done with this market segment. Together with academics Stuart Hart and Allen Hammond, Prahalad turns this logic around

by analyzing how the total buying power of this group could be stimulated, as long as there is access to vital resources such as money, telecommunications and energy.
The simple observation is that, because there is much untapped purchasing power at the bottom of the pyramid, private companies can make significant profits by selling to the poor. Simultaneously, by selling to the poor, private companies can bring prosperity to the poor, and thus can help eradicate poverty. Prahalad suggests that large multinational companies should play the leading role in this process, and find both glory and fortune at the bottom of the pyramid. Prahalad suggests that there is much eagerness to do business in this sector – as long as traditional barriers can be modified.
To enable poor people to use their buying power, Prahalad suggests making use of the following 12 building blocks. Solutions must:

1. be low-priced
2. merge old and new technology
3. be scalable and transportable across countries, cultures and languages
4. be eco-friendly
5. put functionality above form
6. be based on innovative processes
7. use deskilled work
8. educate customers
9. work in hostile environments
10. be flexible with interfaces
11. be available for the highly dispersed rural market as well as highly dense urban markets
12. be fit for paid evolution.

This idea behind Bottom of the Pyramid has enjoyed global acceptance since its presentation in 2002. An earlier example of how doing business with poor can pay off for all stakeholders is given by the success story of Bangladeshi banker, economist and Nobel Peace Prize recipient Muhammad Yunus, who developed the concepts of microcredits and microfinance, small loans given to entrepreneurs too poor to qualify for traditional bank loans. Other examples include the limited success of the Tata Nano car and the success of Hindustan Lever, one of Unilever's largest subsidiaries.
Critics have claimed that the Bottom of the Pyramid proposition might be too good to be true. Karnani (2006) states that the Bottom of the Pyramid proposition is at best a harmless illusion and potentially a dangerous delusion. The Bottom of the Pyramid argument is riddled with inaccuracies and fallacies. Other than the success of microcredit, there have not been many convincing examples of the fortune to be made at the bottom of the pyramid (Kay and Lewenstein, Harvard Business Review, April 2013).

Model 5: Cradle to Cradle, William McDonough, Michael Braungart, 2002
How may we improve the quality of products and create less waste at the same time? Cradle to Cradle business model involves designing a product while keeping its end phase in mind, so that the materials used to create a product can be used again at the end of its life cycle, without losing their integrity or quality. The model is based on viewing all necessary product inputs as nutrients in a cycle that, once they have served their purpose, maintain their value and can fulfill another function within a life cycle. In essence, this means designing for reincarnation. Architect William McDonough and chemist Michael Baumgart's Cradle to Cradle model works in parallel with their concept of waste equals food by which they mean that the waste of one system or process must be the food or feedstock of another. With the right design, all of the products and materials of industry will feed these two metabolism, providing nourishment for something new, thereby eliminating waste.

To further explain the implication of such design system, McDonough, Braungart and Justus Englefried developed the intelligent product system, which is a typology of three fundamental products that guides design to meet the waste-equals-food test. The product types are consumables, products of service, and unsalables. To redesign the production process, five steps are outlined in Cradle to Cradle – Remaking the Way we Make Things:

1. get free of known culprits (problems that hurt the system),
2. follow informed personal preferences,
3. create passive positive lists of the materials used, categorized according to their safety level: a. the X list, substances that must be phased out, such as teratogenic, mutagenic, carcinogenic substance, b. the Gray list, problematic substances that are not so urgently in need of being phased out, c. the P list, the positive list, substance actively defined as safe for use;
4. activate the positive list,
5. reinvent and redesign the former system.

Ideally, Cradle to Cradle helps companies to improve the quality of their products, so that they are desirable to the consumer, pose no health risk for anyone who comes into contact with them and are of both economic and ecological benefit. Through collaborating with various companies, authors have proven that this business model design is possible.
One of the biggest misconceptions regarding this model is that it is placed within a context of waste reduction or minimization, but Cradle to Cradle is not a recycling concept, but a whole system concept.
Critics have noted that authors previously kept C2C consultancy and certification in their inner circle, leading to a lack of competition, which prevented the model from fulfilling its potential.

Model 6: The Sustainable Value Framework, Stuart Hart, Mark Milstein, 2003

Sustainable Value Framework answer the question what are the strategies that enable an company to achieve sustainable value. The authors see sustainable development as a multidimensional opportunity. They identify the drivers that trigger change, propose strategies to deal with these drivers, and provide aspirational outcomes of these strategies that contribute to a more sustainable world while simultaneously driving shareholder value.
The model specifically suggests that, by pursuing strategies that meet the drivers of today and tomorrow, both internal and external, the corporate payoff will include: innovation and repositiong, a growth trajectory, cost and risk reduction and improved reputation and legitimacy. Peter Senge incorporated this value framework in his book The Necessary Revolution (2008), taking a systems perspective on which transformative strategies are essential for creating a flourishing, sustainable world.

Model 7: Multiple Stakeholder Sustainability, Fons Trompenaars and Peter Woollinams, 2010

Multiple Stakeholders Sustainability Model tries to solve the problem related to the assessment of the most significant company dilemmas resulting from conflicting stakeholder demands, and also the assessment of business priorities to create sustainable performance.
Business sustainability is not limited to the fashionable environmental factors such as emissions, green energy, saving scarce resources, corporate social resnponsibility, and so on.

The future strength of the business depends on the way leadership and management[2] deal with the tensions bethween the five major entities facing any business: efficiency and effectiveness of business processes, employee development and learning, satisfaction of the clients, shareholders returns and financial performance and contribution to society. The manner in which these tensions are addressed and resolved determines the future strength and opportunities of the business. This model proposes that sustainability can be defined as the degree to which an company is capable of creating long-term wealth by reconciling its most important dilemmas, created between these five components. Authors identified ten dimensions consisting of dilemmas formed from these five components, because each one competes with the other four.

The authors have developed a sustainability scan to use when making a diagnosis. This scan reveals in the major dilemmas and how people perceive the company's position in relation to these dilemmas. Than the corporate culture of a company and their openness to the reconciliation of the major dilemmas and the competence of its leadership to reconcile these dilemmas.

After diagnosis the company can move on to reconciling the major dilemmas that lead to sustainable performance. To this end, the authors developed a dilemma reconciliation process consisting of integration the competing demands of their key stakeholders and resulting in a better understanding of

1. the key challenges the company faces with its various stakeholders and how to prioritize them,
2. the extent to which leadership and management are capable of addressing the company dilemmas
3. the personal values of employees and their alignment with company values.

The results help a company define a strategy in which crucial dilemmas are reconciled, and ensure that the company's leadership is capable of executing the strategy sustainability. It does so while specifically addressing the company's wealth-creating processes before the results show up in financial reports. It attempts to anticipate what the company financial perfomance will be some six months to three years in the future, as the financial effects of dilemmas recinciliation are budgeted. It takes a unique approach to making strategic decisions that are tough as well as inevitable, with the goal of realizing a profitable and sustainable company future.

4 CONCLUSION

We have discussed different angles related to sustainability. According to Peter Senge, sustainability requires that we think in term of whole systems, with the earth as a vital part of that system and the industry cluster as part of the solution This will require the ever more inclusive values espoused by Abraham Maslow and Richard Barrett. Barrett has described the values essential to building a sustainable economy, with stakeholders helping each other to make the system fair and sustainable. As R. Edward Freeman proposed, a precondition for cleaning up the environment is that an ethical alliance of mutually empowered stakeholders, like employees, suppliers, customers, investors and government, come together in this common purpose.

In economic systems, William McDonough an Michael Braungart provide design principles to help us rethink how we build products, so that the concept of waste becomes obsolete an all

[2] LJUDVIGOVÁ, Ivana. Vplyv extroverzie a introverzie na vodcovstvo. In Manažment podnikania a vecí verejných : vedecko-odborný časopis [elektronický zdroj]. - Bratislava : Slovenská akadémia manažmentu, 2016. ISSN 2453-8167, 2016, roč. 11, č. 2, s. 1-7 online. Dostupné na : <http://www.sam-km.sk/vedecky-casopis/aktualne-cislo/>

product components are returned to either the biological or technical cycles where they retain their quality.

C.K. Prahalad reveals the importance and value of looking at the poor. There people are resilient and creative entrepreneurs as well as value demanding consumers. If you can get your prices low enough, there are literally millions of customers who will want to buy, plus everyone who earns more will want a bargain. There are also ways to organize consumers so they help each other, as in microfinance initiatives.

It can help to think of business as a game like James C. Carse and Jane McGonigal do. While people compete at this game, the game itself can become a discipline to be mastered, enjoyed and perfected. Games are typically systems and hence inculcate systems' awareness. The game is a quest for infinite improvement and shared enlightenment. We can play with the simulated systems that support our planet and come up with solutions.

Ray Anderson showed us that, by consciously acting on the knowledge we have, it is possible, with dedication, to change our industries. He was 75% of the way to reaching a zero emissions company at the time of his death, but his pledge to reach the top of Mount Sustainability continues within the company to this day.

5 DISCUSSION

The 17 SDGs offer an ambitious agenda for driving forward research on management, organizations, and leadership in relation to sustainable development: innovation in technological, social, and business models, respecting employees' rights and empowering them, paying a living wage, ending the trafficking of labour, and of all forms of child labour fall, health, wellbeing, and business, diversity, inclusion and equality, etc. There are some illustrative questions, recognizing that there are many additional questions that address these themes and await discovery:

1. Are any other existing leadership or business models truly aligned with spurring breakthrough innovations for sustainability?
2. How can incentive systems or other employment practices be designed to foster innovative capabilities and release human potential among employees?
3. How can business companies and supply chains be designed to end forced labour and child labour, or to protect human rights and advance human conditions?
4. How do company practices aimed at ending poverty and employee exploitation such as paying beyond a living wage shape employee attitudes and performance of the companies?
5. What types of institutional and cultural factors serve as barriers or facilitators of business contribution to health and wellbeing of citizens?
6. How are employer investments in health and wellbeing actually linked to employee health, sustainable lifestyle choices, economically viable companies, and sustainable communities?
7. How can management practices and leader behaviours enable employee wellbeing and financial effectiveness in face of ethnic and racial conflicts?
8. How does a climate of inclusion and equality within companies and in the communities that these organizations serve relate to social and economic sustainability?
9. What role does management standards and metrics play in encouraging and disseminating SDGs oriented business practices? How can these be designed to enhance transparency and sustainability?
10. How do SDGs champions differ from SDG followers and SDG resisters? Why do some companies or leaders embrace the SDGs and others do not?

Acknowledgement
This paper is an outcome of research projects: „ Exploring concepts of human resource management systems in relation to the specifics of competitive business models of existing organizations of the European Business Area“, VEGA No. 1/0609/16 - project funded by the University of Economics in Bratislava; led by Ing. Jana Blštáková, PhD.

References

1. ANDERSON, R. (1999). Mid Course Correction: Toward a Sustainable Enterprise: The Interface Model. Atlanta. Peregrinzilla Press.
2. ADRESON, R., WHITE, R. (2011). Business Lessons from a Radical Industrialist. Hampshire, St. Martin's Press.
3. ANSARI, S. (2013). Constructing the climate change logic: An institutional perspective on the tragedy of the commons. Organization Science, 24: 1014-1040.
4. BANSAL, P. (2003). From issues to actions: The importance of individual concerns and organizational values in responding to natural environmental issues. Organization Science, 14: 510-527.
5. BARRETT, R. (1999). Why the Future Belongs to Values Added Companies. The Journal for Quality and Participation, vol. 22, 1:30-36.
6. BARRETT, R. (2006). Building a Values-Driven Organization: A Whole System Approach to Cultural Transformation, Oxford, Bitterworth-Heinemann.
7. BARRETT, R. (2011). The New Leadership Paradigm, Raleigh, Lulu Press.
8. BONINI, S., BOVE, A. (2014). Sustainability's Strategic Worth. McKinsey Global Survey Results. Retrieved from http://www.mckinsey.com/insights/sustainability/sustainabilitys_strategic_worth_mckinsey_global_results.
9. BUYTENDIJK, F. (2010), Dealing with dilemmas: Where Business Analytics Fall Short, New York, John Wiley.
10. DYLLICK, T. (2016). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true sustainability. Organization and Environment, 29: 156-174.
11. FERRARO, F., ETZION, D., GEHMAN, J. (2015). Tackling grand challenges pragmatically: Robust action revisited. Organization Studies, 36: 363-390.
12. FREEMAN, R., HARRISON, J., WICKS, A., PARMAR, B. COLLE de S. (2010). Stakeholder Theory-The State of the Art, Cambridge, Cambridge University Press.
13. GEORGE, G., HOWARD-GRENVILL, J., JOSHI, A., TIHANYI, L. (2016). Introduction to the special research forum: Understanding and tackling societal grand challenges through management research. Academy of Management Journal, 59: 1880-1895.
14. HAANAES, K, et al. (2011). First look: The second annual sustainability & innovation survey. Sloan Management Review, 52: 77-83.
15. HAWKEN, P. (1993). The Ecology of Commerce: A Declaration of Sustainability. New York. Harper Collins.
16. HART, S. L., MILSTEIN, M. B. (2003), Creating Sustainable Value, Academy of Management Executive, Vol. 17, No. 2, pp. 56-67.
17. KIM, Y. & DAVIS, G. (2016). Challenges for global supply chain sustainability: Evidence from conflict minerals reports. Academy of Management Journal, 59: 1896-1916.
18. KIRON, D., KRUSCHWITZ, N. HAANEAS, K. (2013). The benefits of sustainability – driven innovation. Sloan Management Review, 54: 69-73.

19. LJUDVIGOVÁ, Ivana. Vplyv extroverzie a introverzie na vodcovstvo. In Manažment podnikania a vecí verejných : vedecko-odborný časopis [elektronický zdroj]. - Bratislava : Slovenská akadémia manažmentu, 2016. ISSN 2453-8167, 2016, roč. 11, č. 2, s. 1-7 online. Dostupné na : <http://www.sam-km.sk/vedecky-casopis/aktualne-cislo/>
20. LONDON, T., HART, S. (2011). Next Generation Business Strategies for the Base of the Pyramid: New Approaches for Building Mutual Values. Upper Saddle River. Pearson.
21. LUO, X., ZHANG, J., MARQUIS, C. (2016). Mobilization in the internet age: Internet activism and corporate response. Academy of Management Journal, 59: 2045-2068.
22. MAIR, J., WOLF, M., SEELOS, C. (2016). Scaffolding: A process of transforming patterns of inequality in small-scale societies. Academy of Management Journal, 59: 2021-2044.
23. McDONOUGH, W., BRAUNGART, M. (2002). Cradle to Cradle, remaking the way we make things. New York. North Point Press.
24. PRAHALAD, C. (2004). Fortunate at the Bottom of the Pyramid: Eradicating Poverty through Profits. Philadelphia. Wharton School Publishing.
25. RITTEL, H., WEBBER, M. (1973). Dilemmas in a general theory of planning. Policy Science, 4: 155-169.
26. SENGE, P., SMITH, B., SCHLEY, S. (2008), The Necessary Revolution, New York, Crown Publishing.
27. SCHUSSLER, E., RULING, C., WITTNEBEN, B. (2014). On melting summits: The limitation of field-configuring events as catalysts of change in transnational climate policy. Academy of Management Journal, 57: 7-37.
28. SKORKOVÁ, Z. (2014) Talent management - theoretical approaches to the definition of talent. EDAMBA 2014: proceedings of the international scientific conference for doctoral students and young researchers : 13th - 14th November 2014, Bratislava, Slovak Republic. Bratislava: Publishing House EKONÓM, 2014, pp. 510-518.
29. TROMPENAARS, F., WOOLLIAMS, P. (2009), Towards a Generic Framework of Competence for Today's Global Village', in: The SAGE Handbook of Intercultural Competence, ed. D.K. Deardorff, Thousand Oaks, Sage.
30. TROMPENAARS, F., COEBERGH, P. (2014). 100+ Management Models. How to Understand and Apply the World Most Powerful Business Tools. Oxford. Infinite Ideas Limited.

Contact

Ing. Natália Tarišková, Ph.D.
University of Economics in Bratislava, Faculty of Business Management
Dolnozemská cesta 1/a, 852 35 Bratislava, Slovakia
E-mail: natalia.tariskova@euba.sk

Ing. Zuzana Skorková, Ph.D.
University of Economics in Bratislava, Faculty of Business Management
Dolnozemská cesta 1/a, 852 35 Bratislava, Slovakia
E-mail: zuzana.skorkova@euba.sk

EKONOMIKA STARTUPOV

STARTUP ECONOMICS

Natália Tarišková, Richard Bednár

Abstrakt

Ekonomiku startupu charakterizujeme ako koncepčný rámec riadenia nákladov, získavania príjmov, dosahovania zisku a generovania vyššej než priemernej návratnosti investícií. Startup je podnik určený na rýchly rast a jeho zdroje príjmov sú srdcom úspešnosti podnikateľských aktivít. V príspevku sa zameriavame na špecifiká modelov monetizácie startupov na Slovensku. Predmetom výskumu sú príjmové modely startupov v období 2015 až 2017, ktoré odpovedajú na otázky hodnôt, za ktoré sú zákazníci ochotní platiť, taktikám cenotvorby, konkrétnym predstavám o výške cien ako aj množstve predaných produktov/služieb, merateľnosti výkonu startupov v podobe počtu užívateľov, platiacich zákazníkov a aj štruktúre a výške tržieb. V úvode sa zaoberáme najúspešnejšími príjmovými modelmi vhodnými pre aplikácie startupov vo svete v roku 2016 a v diskusii rozoberáme perspektívy rozvoja startupov s ohľadom na nastupujúce technologické platformy vo svete – umelú inteligenciu, kryptomeny, drony, internet vecí, AR/VR a solárne energie.

Kľúčové slová *start up, podnikateľský model, monetizácia/zdroje príjmov*

Abstract

Economics of the startup is characterized as a conceptual framework for managing costs, revenue generation, profits and generating higher than average return on investment. Startup is a fast growing business and its revenue sources are the heart of business success. In the paper we focus on the specifics of startup monetization models in Slovakia. The subject of the research is the revenue models of the startups between 2015 and 2017, which respond to the questions of values that customers are willing to pay, pricing tactics, concrete ideas about price levels and quantity of products/services sold, the contribution of startup performance measurability in terms of the number of users, paying customers, and the structure and amount of revenue. In the introduction we are dealing with the most successful revenue models suitable for startup applications in the world in 2016, and in the discussion we are discussing startup development perspectives with regard to emerging technology platforms in the world - artificial intelligence, cryptocurrencies, drones, internet of things, AR / VR and solar energy.

Key words *Start Up, Business Model, Monetization/Revenue Streams*

1 ÚVOD

Startup je spoločnosť určená na rýchly rast. Všetko ostatné, čo spájame so startupovým prostredím, vyplýva z potreby rýchleho rastu (Paul Graham). Rovnako je startup podnik, vytvorený za účelom hľadania opakovateľného a škálovateľného obchodného modelu (Steve Blank). Paul Graham rozširuje svoju definíciu, keď konštatuje, že začínajúce podniky sa snažia "urobiť niečo, čo zákazníci skutočne chcú" tým, že "ponúknu lepšie technologické riešená, než majú teraz" a "vynakladajú na to čo najmenej peňazí".

Winston Churchill dávno pred vznikom startupového ošiaľu, ktorý v súčasnosti bičuje podnikateľskou scénou, pomenoval úspech ako niekoľkonásobnú cestu prechodov z neúspechu do neúspechu bez straty nadšenia.

Aký príjmový model reprezentuje úspech startupu? Bez ohľadu na akúkoľvek kategorizáciu, určite ten, ktorého objem prostriedkov, peňazí a kapitálu vynaložených na prevádzku startupu v konečnom dôsledku neprevyšuje objem získaných prostriedkov z nich (tzv. Positive Cash Flow). V opačnom prípade ide o podnikateľské úsilie odsúdené na insolventnosť. Podobne možno konštatovať rovnicu, ktorá platí aj v prípade získavania nových zákazníkov, ktorí sa v ideálnom modeli transformujú z neplatiacich užívateľov využívajúcich bezplatné, skúšobné a inak pilotne zamerané užívanie výrobkov a služieb. Ak objem prostriedkov investovaných do získania platiacich zákazníkov (tzv. Customer Acquisiton Cost, CAC) je nižší ako hodnota životnosti zákazníka, ktorú noví zákazníci prinášajú do podnikania startupu (tzv. Customer Lifetime Value, CLV), potom startup neprežije v blízkej budúcnosti dlhšie ako niekoľko mesiacov. Príjmový model potom charakterizujeme ako koncepčný rámec získavania príjmov, dosahovania zisku a generovania vyššej než priemernej návratnosti investícií. Inými slovami príjmový model poskytuje odpovede na dve základné otázky:

1. Akú hodnotu za peniaze startup poskytuje, komu a za koľko?
2. Aký zdroj príjmu sa v startupe realizuje?

Skôr, ako sa sústredíme na výsledky prieskumu stavu, štruktúry a vývoja monetizácie startupov na Slovensku v období od októbra 2015 do júna 2017, venujeme pozornosť vývoju príjmových modelov vo svete aplikácii, ktoré sa odporúčajú do pozornosti pre startupovú scénu na základe monitorovania úspechov v roku 2016.

Startupy. Najväčšia zmena v technologickom svete od začiatku 20. storočia. Nikdy nebolo tak ľahké založiť firmu a bariéry vstupu na trh tak minimálne, že vďaka príchodu služieb cloud computingu, ako sú Amazon EC2 a Rackspace, firmy vynakladajú len niekoľko stoviek dolárov za serverovú infraštruktúru, databázy a ich spracovanie. Pred niekoľkými rokmi podnikatelia vynaložili desiatky tisíc za rovnaké služby a tisíce ďalších na údržbu a prevádzku.

Podniky prosperujú, keď dosahujú zisk. Pre akékoľvek podnikanie možno zisk merať celkovými príjmami a odpočítaním celkových nákladov. Keďže celkové náklady na startupy sú oveľa nižšie vďaka vyššie uvedeným službám cloudu, umožňuje im to ľahšie dokázať, že ich podnikanie je úspešné a dôveryhodné, keď sa pokúšajú žiadať o rizikový kapitál. A čo sa týka nákladov, prinajmenšom je potrebné pokryť výdavky na zamestnancov, čo je jeden z dôvodov, prečo je startup "štíhly" a má menej ako 10 zamestnancov.

Ale aký je najlepší spôsob generovania príjmov? Existuje veľa starupov, ako je služba Instagram, služba zdieľania fotografií, ktorá nemá žiadny model generovania príjmov od užívateľov. Je tento obchodný model trvalo udržateľný?

Úspešný investor Dave McClure uvádza päť kľúčových determinantov investovania do startupov: trh, produkt, tím, zákazníci a príjmy. Môžu však startupy fungovať bez modelu príjmov, ak to kompenzujú dokonalým produktom, fungujúcim tímom, zameriavajú sa na správny trh a získavajú veľa užívateľov? 99% startupov potrebuje spoľahlivý a efektívny spôsob, ako si zarobiť peniaze, inak skončia. Ale zvyšné 1%, ktoré má excelentný produkt a excelentný tím, môže vzdorovať princípom mikroekonómie a dokáže uspieť aj bez explicitného modelu generovania príjmov.

Je veľmi pravdepodobné, že spoločnosť Instagram nemá v úmysle speňažiť svoje služby vôbec a namiesto toho používa svoj produkt ako odrazový mostík pre oveľa lepšie, väčšie veci. Ktokoľvek v Silicon Valley môže vyrábať výrobok alebo poskytovať služby, ale len veľmi málo ľudí dokáže poskytovať tak excelentné služby ako Instagram. Beluga bol startup, ktorý sa špecializoval na mobilné rozhovory. Ten neskôr kúpil Facebook, a ich tím bol začlenený do spoločnosti a pomohol vyvinúť aplikáciu Facebook Messager pre mobilné aplikácie. GroupMe bolo ďalšie riešenie sociálnej komunikácie, ktoré neskôr kúpil Skype. Oba startupy sa odkúpili za niekoľkomiliónovú hodnotu.

Startup založený za účelom odkúpenia v niekoľkomiliónovej hodnote je legitímnou stratégiou napriek riziku, že nie je isté, či niekto bude mať v budúcnosti záujem o kúpu. Ak však startup vytvorí veľkú užívateľskú základňu, väčšie spoločnosti určite zoberú na vedomie tento fakt a kúpia startup iba preto, aby rozšírili rady svojich užívateľov. Šanca na tento model je vysoká, avšak neschopnosť platiť zamestnancov, servery a prevádzku v horizonte päť až desať rokov, kým startup dozreje na kúpu, je tou najväčšou bariérou dožitia sa šťastného konca.

2 PRÍJMOVÉ MODELY STARTUPOV ZA ROK 2016 VO SVETE APLIKÁCIÍ

Najúspešnejšími príjmovými modelmi startupov vo svete aplikácií za rok 2016 boli online reklamy, affiliate marketing a lead generation, predaj dát tretím stranám, transakčné poplatky, freemium model, elektronické obchody, predaj virtuálnych produktov a predplatné[1].

2.1 Reklama

Online reklama je obrovská a neustále rastie. Tento fakt potvrdzujú uvedené štatistiky:

- Príjmy z internetovej reklamy v USA sa v roku 2016 zvýšili o 22% na rekordnú hodnotu 72,5 miliárd dolárov (prvýkrát prekročili 69 miliárd dolárov vynaložených na televízne reklamy)2
- Očakáva sa, že digitálna reklama v USA dosiahne v roku 2017 83 miliárd USD3
- Globálne výdavky na internetovú reklamu by mali v roku 2017 prekročiť 200 miliárd dolárov4

Online reklama funguje ako jeden z hlavných modelov príjmov startup pomocou aplikácie. Implementácia online reklamy sa môže uskutočniť rôznymi spôsobmi:

- Reklamy tretích strán sa môžu zobrazovať v rámci samotnej aplikácie iOS / Android alebo na webovej stránke spoločnosti.
- Môže sa vytvoriť vlastná reklamná sieť à la Facebook, Google, LinkedIn alebo Twitter.
- Môžu sa účtovať poplatky za inzerciu, ak sa pracuje na platforme predaja ako eBay alebo Craigslist.
- Môžu sa zobrazovať ako zoznamy napr. pracovných miest (podobne ako stránky ako Stack Overflow a Angel List).

Kľúčovou nevýhodou pri používaní modelu výnosov založeného na inzercii je skutočnosť, že väčšina užívateľov naozaj nemá rada reklamy - či už sú to iOS, Android alebo iné aplikácie na zariadení 5. Užívatelia zvyčajne reagujú nespokojnosťou, keď sa stretávajú s reklamami, najmä keď spoločnosť začína používať reklamy už v prvých dňoch svojej existenice. To sa týka vyskakovacích okien, intersticiálnych reklám a natívnych reklám. Môže sa tak zhoršiť nielen prvotná akceptácia a užívanie aplikácie, ale aj miera udržania zákazníkov, ak sa užívatelia zaťažujú reklamou príliš často alebo príliš skoro. Navyše, ak je model výnosov založený výlučne na zdrojoch z reklamy, potom samozrejme nastupuje život v pokušení obetovať stále viac a viac za skúsenosti užívateľov, aby sa vytvárali rastúce objemy príjmov z reklamy.

Starupom, ktoré kombinujú reklamu s inými modelmi príjmov, napr. ako služba Premium spoločnosti Spotify, zobrazená nižšie, sa darí lepšie ako spoločnostiam, ktoré sa spoliehajú výlučne na reklamné peniaze.

2.2 Marketing hosťovania a tvorba spojitosti záujmu

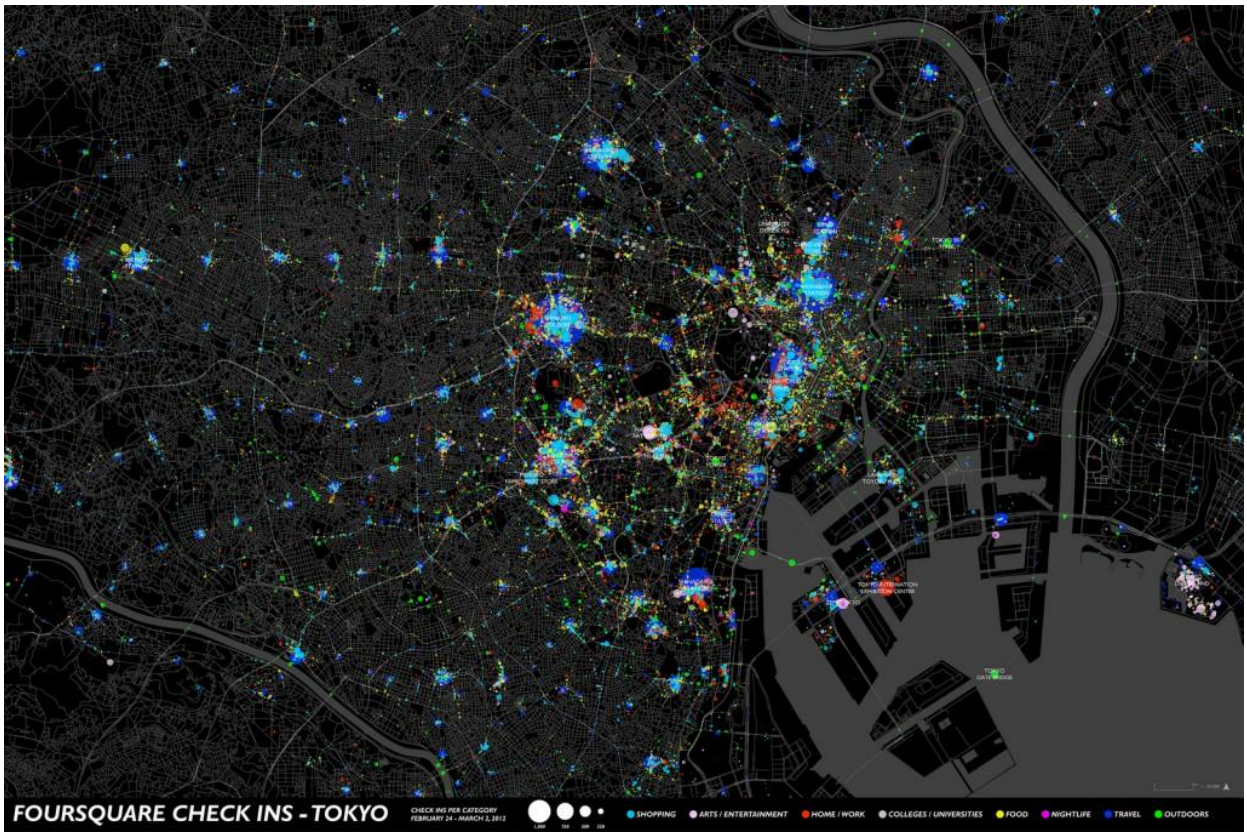
Druhá stratégia monetizácie, ktorá sa úspešne používa v startupoch, je nastavenie affiliate marketingu (tzv. marketing hosťovania) a lead generation (tzv. tvorba spojitostí, resp. vodivosti/priechodností záujmu).

Pat Flynn z Smart Passive Income uvádza opis "affiliate marketingu" nasledovne: „Affiliate marketing je proces získavania provízie podporou produktov iných ľudí (alebo spoločností).

Nájdete výrobok, ktorý sa vám páči, spropaguje ho ostatným a získavate časť zisku za každý predaj, ktorý urobíte. Ste šťastní, pretože ste získali províziu. Spoločnosť je šťastná, pretože má nový predaj od zákazníka, ku ktorému sa zvyčajne nedokáže dostať. A zákazník je šťastný, pretože sa dozvedel o produkte od vás, ktorého odporúčanie splní jeho potrebu alebo túžbu. "
V skutočnosti affiliate marketing zvyčajne zahŕňa získavanie provízie, keď užívateľ sťahuje a / alebo kúpi produkt alebo službu, a to tak, že nasleduje odkaz, ktorý hosťuje na webových stránkach alebo v aplikácii. Podcast Addict používa stratégiou affiliate marketing hosťovaním reklám v spodnej časti obrazovky (v tomto prípade reklama pre systém Android Pay):
V ďalšom kroku možno prepojiť affiliate marketing so stratégiou prepájania/spojitostí alebo konkrétnejšie s predajom, ktorý vedie k zainteresovaným stranám.
Lead Generation, môže byť definovaná ako „marketingový proces stimulovania a zachytenia záujmu o výrobok alebo službu na účely rozvoja predajnej siete". Generovanie záujmu potom zahŕňa prilákanie záujmu potenciálnych zákazníkov, ktorí sú prepojení na jednu líniu. Zároveň možno predávať aj do línií iných zainteresovaných strán. To je presne to, čo populárna aplikácia a webové stránky mint.com robia.
Mint poskytuje svojim užívateľom bezplatné služby na riadenie osobných financií, čo im umožňuje sledovať ich bankové, investičné, kreditné a úverové zostatky a transakcie, ako aj vytvárať rozpočty a vytvárať finančné ciele. Mint agreguje a de-individualizuje všetky finančné údaje, ktoré zhromažďuje a potom tieto údaje predáva bankám, spoločnostiam poskytujúcim kreditné karty a iným zainteresovaným stranám za poplatok, ktorý môže následne získať a orientovať týchto zákazníkov na vlastné služby a produkty. Mint tiež generuje príjmy prostredníctvom partnerských programov, v ktorých ponúka používateľom možnosť napríklad zaregistrovať sa na kreditné karty na Mint.com alebo prostredníctvom aplikácie, čo má za následok, že Mint dostane malú platbu vždy, keď sa spracuje žiadosť o kreditnú kartu[6].
Realizácia predaja, či už online alebo offline, môže niekedy zahŕňať etické a / alebo právne dôsledky, takže je dôležité mať na zreteli, že sa neporušujú žiadne morálne ani právne zásady, ktoré by mohli poškodiť reputáciu alebo činnosť startupu. Táto opatrnosť platí aj pre nasledujúci model výnosov, t.j. big data, teda predaj dát.

2.3 Selling Data/predaj dát

Tretí model mobilnej aplikácie príjmového modelu pozostáva z predaja veľkých údajov tretím stranám. Ak aplikácia zhromažďuje veľké údaje o zvykoch alebo preferenciách zákazníkov, potom je pravdepodobné, že tieto údaje majú hodnotu pre iné spoločnosti, ktorých produkty závisia od toho, že vedia, čo ľudia chcú a robia.
Napríklad ultra obľúbená a bezplatná aplikácia Foursquare umožňuje používateľom verejne zdieľať svoje lokality (tzv. "Check-iny") s ostatnými. Tieto údaje sa zostavujú do masívnych databáz, ktoré potom spoločnosť Foursquare predáva zainteresovaným tretím stranám.7 Spoločnosť Foursquare doteraz zhromaždila údaje o registrácii na viac ako 10 miliárdch check-inoch, to je obrovské a cenné množstvo dát.
Tu je príklad mapy v Tokyu, obsahujúce údaje o odbere za týždeň v roku 2012:



Komu sú tieto údaje vzácne? Možno Starbucks sa snaží otvoriť 3 nové kaviarne na najrušnejších križovatkách v Tokiu. Tieto údaje by pomohli spoločnosti Starbucks rozhodnúť sa, kde presne postaviť svoje nové obchody prostredníctvom vizuálneho posúdenia toho, kde sa zhromaždí väčšina ľudí, na aké účely a podobne. Iný príklad je spoločnosť Microsoft, ktorá investovala 15 miliónov dolárov do spoločnosti Foursquare v roku 2014, aby získala licenciu na údaje o polohe aplikácie.

2.4 Transaction Fees

Ak startup funguje ako digitálny trh alebo platforma, kde sa pravidelne vyskytujú finančné transakcie, ako napr. Kickstarter, globálna platforma crow-fundingu zameraná na kreatívu, potom transakčné poplatky predstavujú najvhodnejší model príjmov startup z aplikácií, ktorý je potrebné zvážiť.

Stripe, aplikácia online platieb, v súčasnosti hodnota startupu je odhadovaná vo výške 9,2 miliardy dolárov, generuje výnos výlučne účtovaním malých poplatkov za každú dokončenú transakciu.

2.5 Freemium

Prístup vytvárania príjmov pre freemium model je veľmi bežný medzi dnešnými webovými službami vrátane digitálnych aplikácií. Základný prístup je jednoduchý v podobe poskytnutia základnej, funkčnej a úplne bezplatnej verzie produktu alebo služby a súčasne nabádanie užívateľov k tomu, aby sa stali platiacimi zákazníkmi tým, že sa im ponúka pokročilejšia, prvotriedna kvalita za prvotriednu cenu. Mnohé produkty založené na SaaS (softvér ako služba) využívajú obchodný model freemia. Služba hosťovania súborov založená na cloudoch Dropbox, ponúka novým používateľom 2 GB bezplatného úložného priestoru popri prémiových možnostiach, ktoré umožňujú používateľom kúpiť ďalší priestor.

Použitím modelu príjmu freemia Dropbox sa zmenil na viac ako 500 miliónov užívateľov. V skutočnosti existuje niekoľko rôznych spôsobov, ako môžu začínajúce startupy implementovať štruktúrovaný prístup založený na freemium príjmoch z aplikácií.
Medzi tri najbežnejšie patria:

1. Freemium na základe kapacity: bezplatná verzia produktu alebo služby sa ponúkana až do určitej kapacity, napr. výška použitia alebo počet používateľov, za ktoré sú užívatelia povinní zaplatiť, aby mohli službu naďalej využívať, napr. Dropbox, Evernote.
2. Freemium založené na funkciách: ponúka bezplatnú verziu produktu alebo služby, ale jeho funkčnosť je obmedzená, pokiaľ používatelia nebudú platiť za odblokovanie celého spektra funkcií, napr. Buffer, Skype.
3. Freemium založené na čase: bezplatná verzia produktu alebo služby je ponúkaná, ale iba na obmedzenú dobu, t.j. štandardná bezplatná skúšobná verzia, napr. Audible, Shopify.

2.6 E-Commerce

E-Commerce je príležitosťou monetizácie startupu, pokiaľ nefunguje primárne ako e-shop. Mnohé startupy, ktoré majú oddelené užívateľské komunity, predávajú na svojich internetových stránkach propagačné predmety (napríklad tričká). Okrem toho je možné kombinovať model príjmov na báze freemia s elektronickým obchodovaním predaja produktov alebo služieb súvisiacich priamo s tým, čo predávate. Príkladom toho je prijímanie, organizovanie a archivácia aplikácie Evernote, ktorá až do roku 2016 kombinovala model freemia s ďalšími príjmami z elektronického obchodu vo forme predaja fyzických výrobkov prostredníctvom trhu Evernote. Bohužiaľ spoločnosť Evernote nedokázala vďaka svojmu trhu generovať dostatočný zisk, a tak v roku 2016 prerušila svoju činnosť v oblasti elektronického obchodu.

2.7 Virtual Goods/Virtuálne tovary

Celosvetový trh s virtuálnymi produktami od samolepiek, avatarov, mincí, zbraní a špeciálnych úrovní sa v súčasnosti odhaduje na približne 15 miliárd dolárov. V zásade môže akýkoľvek elektronický tovar slúžiť ako potenciálne speňažiteľný virtuálny tovar s videohrami napr. Angry Birds, Farmville atď., ktoré sú pravdepodobne najbežnejším typom vôbec. Ultra populárny Pokémon Go ponúka používateľom možnosť kupovať veľa rôznych typov virtuálneho tovaru vrátane "PokéCoins."

2.8 Software-as-a-Service (SaaS) / Predplatné

SaaS, príjmové modely založené na predplatnom, sú veľmi atraktívnou možnosťou pre startupy, za predpokladu, že ich služby sú vhodné pre prístup k predplatnému. Predplatné umožňuje zaviazať zákazníkov do dlhodobých platobných záväzkov (zvyčajne mesačne alebo ročne), čím sa zvyšuje celoživotná hodnota zákazníkov. Okrem toho opakujúce sa výnosy, ktoré prichádzajú spolu s ponukou plánov na základe predplatného, predstavujú pomerne predvídateľný a zabezpečený tok príjmov, na ktorý je možné sa spoľahnúť. Medzi rôznymi prístupmi k príjmom založeným na SaaS, z ktorých si začínajúci podnikatelia môžu vybrať, sú dve z najpopulárnejších možností:
1. Pay as you go (PAYG): spoplatnenie používateľov podľa ich individuálnych sadzieb. To bolo veľmi populárne s plánmi mobilných telefónov. Spoločnosti ako Amazon Web Services a Twilio používajú tento model v snahe ponúknuť svojim zákazníkom flexibilné cenové plány. Kľúčovou nevýhodou modelu PAYG je skutočnosť, že je často ťažké udržať si vysoko predvídateľné príjmy (čím potenciálne prináša značnú neistotu v podnikaní).

2. Stupňovanie cien: Rozdeľuje služby na rôzne úrovne (alebo úrovne) na základe funkcií a množstiev využitia tak, že zákazník platí tým viac, ako sa jeho potreby vyvíjajú a rozširujú. Stromové stanovenie cien je najbežnejším modelom používaným v rámci podniku SaaS. Jedným z kľúčových prínosov tohto prístupu je skutočnosť, že jasne ukazuje, že užívatelia môžu splniť svoje špecifické potreby, a to v súčasnosti i v budúcnosti, aj keď sa časom menia. Príkladom je model príjmov Shopify pozostáva z časovo založeného freemia (štrnásťdňové skúšanie) a prístupov SaaS (stupňovité predplatné).

2.9 Iné

V závislosti od cieľov, povahy svojich produktov alebo služieb a druhov podnikania, ktoré si startupy chcú robiť, existujú rôzne iné modely príjmov, ktoré môžu podnikateľské subjekty realizovať. Kľúčom je učiť sa, ako efektívne pretaviť tvorivosť na tvorbu príjmov. Napríklad bezplatná aplikácia na výučbu jazykov Duolingo využíva silu veľkých davov, pokiaľ ide o postupy prekladateľských služieb. Spoločnosť Duolingo používa softvér na analýzu a výber najlepšej verzie dokončovania prekladov. Výsledkom je prekladateľská služba, ktorá vytvára preklady nadradené prekladateľom Google. Novšie podniky a organizácie (a iné webové stránky), ktoré potrebujú vytvárať viacjazyčný obsah, si potom môžu tieto preklady zakúpiť od spoločnosti Duolingo. Spoločnosť Duolingo sa tiež zaoberá sponzorovanými článkami, v ktorých sa obsah prekladá za poplatok.

3 CIEĽ, METÓDY A VÝSKUMNÁ VZORKA

Hlavným cieľom výskumnej práce je objasniť a hlbšie spoznať problematiku príjmových modelov, ich štruktúru, zmysel a účinnosť a na základe teoretických východísk analyzovať modely vo vybraných startupoch, identifikovať hlavné trendy, extrémy, tendencie a typológiu. Čiastkové ciele sledujú hlavný cieľ a rozoberajú ho z viacerých pohľadov:

1. Analyzovať vybrané príjmové modely z kvantitatívneho hľadiska a určiť početnosť výskytu ich vlastností.
2. Na základe rozboru vedeckej literatúry, kvantitatívnej a kvalitatívnej časti analýzy zoskupiť modely podľa viacerých hľadísk a vytvoriť typológiu príjmových modelov. Tento cieľ je podstatný z dvoch hľadísk. V prvom rade systematizuje zistené fakty a sprehľadňuje ich, čím vytvára nadhľad nad existenciou a fungovaním startupov. Zároveň tento nadhľad by mal pomôcť vedeckej a podnikovej praxi aplikovať niektorú z uvedených foriem príjmov do svojich startupov.
3. Na základe merateľnosti výkonu startupov identifikovať úroveň rozvinutosti podnikateľského modelu a výkonu startupu v období rokov 2015-2017 v podobe vývoja počtu užívateľov, platiacich zákazníkov, štruktúry a výšky tržieb, identifikácii príčin zlyhania vo vzťahu k predaju produktov a služieb vo fáze prípravy, realizácie, distribúcie, ale aj vo vzťahu k zdrojom financovania, partnerom a startupovým tímom.

Počas rokov 2015, 2016 a 2017 sme v troch kolách analyzovali 76 startupov na Slovensku a ich podnikateľské modely prostredníctvom dotazníkov. Súčasťou analýzy bolo skúmanie príjmových tokov, ktoré vytvárajú a ktoré sme porovnali v dvoch časových rokoch – 2015 a 2016. Finančné údaje sme čerpali z verejne dostupných zdrojov Finstat.

Údaje o výskumnej vzorke sú spracované metódami deskriptívnej štatistiky a následne metódami základnej korelačnej štatistiky. Deskriptívnou štatistikou sme spracovali odpovede na otázky 2.8 Toky príjmov podnikateľského modelu CANVAS v kvantitatívnom alebo kvalitatívnom vyjadrení. Korelačnou štatistikou sme skúmali vnútornú závislosť tokov príjmov vo vzťahu k vybraným blokom podnikateľského modelu a vzťah medzi úrovňou rozvinutosti modelu, fázy rozvoja produktu/služby a výkonom startupu.

Toky príjmov startupov sú zaznamenané v štruktúre subjektívnej hodnoty, za akú sú zákazníci ochotní naozaj zaplatiť. Miera konkrétnej predstavy o výške ceny produktu/služby bola

zazanamenaná škálou: 1 – žiadna, 2 – prvá predstava, 3 – ucelený koncept, 4 – pokusy s realizáciou, 5 – úplná, alebo takmer definitívna. Miera konkrétnej predstavy o množstve predaných produktov/služieb bola zaznamenaná škálou: 1 – žiadna, 2 – prvá predstava, 3 – ucelený koncept, 4 – pokusy s realizáciou, 5 – úplná, alebo takmer definitívna. Merateľný výkon startupu bol zaznamenaný v počte užívateľov na škále: 1 – žiadny, 2 – niekoľko, 3 – niekoľko desiatok,, 4 – niekoľko stoviek, 5 – niekoľko tisíc a viac. Počet platiacich užívateľov (zákazníkov) bol zaznamenaný na škále: 1 – žiadny, 2 – niekoľko, 3 – niekoľko desiatok,, 4 – niekoľko stoviek, 5 – niekoľko tisíc a viac. Tržby boli mapované škálou: 1 – žiadne, 2 – pokrývajú doterajšie náklady od 0 do 25 %, 3 – pokrývajú doterajšie náklady od 25 do 75 %, 4 – pokrývajú doterajšie náklady od 75 do 100 %, 5 – prinášajú zisk do 25 % z nákladov, 6 – prinášajú zisk od 25 % do 50 % z nákladov, 7 – prinášajú zisk viac ako 50 % z nákladov. Príčiny nevytvárania príjmov boli sledované 100% škálou, ktorá sa pomerne rozdelila na príčiny produktu: produkt je vo fáze prípravy, zlyhanie produktu, výrobná/prevádzková báza produktu je vo fáze prípravy, zlyhanie realizácie produktu, distribúcia produktu je vo fáze prípravy, zlyhanie distribúcie produktu. V prípade, že príčinou zlyhania startupu boli iné ako produktové okolnosti, 100% škála sa pomerne rozdelila na príčiny: zlyhania financovania, zlyhania tímu, zlyhania partnerov a iné príčiny.

Pre skúmanie problematiky príjmového modelu startupu sme použili kombináciu viacerých vedeckých metód a prístupov, ktoré umožnili vzájomné súvislé poznanie skutočností a skúmanie procesov v ich úplnosti. Postup spracovania príspevku je založený na systémových princípoch vedeckej práce využívajúc dostupné poznatky v danej oblasti.

Metodika je súhrn systémovo usporiadaných metód, foriem, spôsobov a pravidiel ich použitia pri riešení vedecko-teoretických, alebo vedecko-praktických problémov. V praxi sa môžu rovnaké problémy riešiť aj rovnakými metódami, formami a pravidlami, avšak rôznymi metodikami.

Pojem vedecká metóda je všeobecný a relatívne obsažný: Chápe sa najčastejšie ako „súhrn pravidiel, ktorými sa treba riadiť v procese poznania alebo ako súbor pravidiel, vyjadrujúci účelný a objektívne zvolený spôsob ako skúmať jav a dosiahnuť vedecké poznanie“, alebo tiež ako „spôsob, ktorým sa získavajú, klasifikujú a vysvetľujú nové vedecké poznatky“, alebo ako „zámerný a cieľavedomý, uvedomený postup pri práci alebo v konaní“ (Ristvej, 2010)8.

Pri skúmaní problematiky príjmových modelov startupov sme využívali množstvo informácií, vedomostí a poznatkov, ktoré sme získali štúdiom domácej a zahraničnej literatúry, publikácií a internetových zdrojov. Ďalšími zdrojmi, z ktorých sme získali informáci, boli poznatky z domácich a zahraničných vedeckých článkov a štatistík, ktoré boli spracované Finstatom a štatistickým úradom.

Metódy, ktoré sme vybrali, sme určili podľa témy príspevku a vytýčeného hlavného cieľa. Na dosiahnutie cieľa príspevku, ako aj čiastkových cieľov sme aplikovali tieto vedecké metódy: dotazník, analýza a syntéza, komparácia, modelovanie, indukcia a dedukcia.

Predložený príspevok predstavuje sledovanie javov v ekonomickej oblasti, preto kvalitatívne poznatky sú doplnené o kvantitatívne údaje. Tieto kvantitatívne údaje sme spracovali formou grafov a tabuliek, aby sme dosiahli prehľadnú formu prezentácie.

4 VÝSLEDKY ANALÝZY

Prevažná časť startupov v našom výskume podľa kategorizácie SK NACE9 svoju činnosť vykonáva v rámci odvetvia Informácie a komunikácie (24 %). Tento typ odvetvia je typický pre Industry 4.0 a umožňuje rýchlu škálovatelnosť, ktorú startupy vyhľadávajú. Viac ako 1/5 startupov je zameraná na administratívne a podporné služby, ktoré pomáhajú zefektívňovať procesy vo firmách, čím šetria náklady a zvyšujú ziskovosť. Tretím najzastúpenejším

odvetvím je priemyselná výroba (14,7%). Tieto podniky vyvíjajú a vyrábajú produkty, väčšinou náročnejšieho technologického charakteru. Celkový prehľad sa nachádza v Tabuľke 1.

Odvetvie (%)	**%**
Informácie a komunikácia	24,0
Administratívne a podporné služby	21,3
Priemyselná výroba	14,7
Umenie, zábava a rekreácia	9,3
Veľkoobchod a maloobchod, Oprava motorových vozidiel a motocyklov	5,3
Finančné a poisťovacie činnosti	5,3
Zdravotníctvo a soc. Pomoc	5,3
Dodávka vody, čistenie a odvod odpadových vôd, odpady a služby odstraňovania odpadov	4,0
Verejná správa a obrana, Povinné soc. Zabezpečenie	2,7
Vzdelávanie	2,7
Stavebníctvo	2,7
Poľnohospodárstvo, lesníctvo a rybolov	1,3
Ostatné činnosti	1,3
Spolu	**100,0**

Tabuľka 1 Odvetvia podľa SK NACE

Produkty a služby, ktoré startupy ponúkajú, sú väčšinou určené pre konečného zákazníka (B2C, 53,3%). Viac ako 1/3 startupov predáva svoj produkt ostatným firmách (B2B, 37,3%). Len 9,3% startupov kombinuje ako koncových zákazníkov, tak aj firemných klientov.
Podstatou podnikateľského úspechu startupov je vysoký záujem zákazníkov na reálnom trhu. Preto najmä na začiatku firmy dávajú prednosť náboru nových zákazníkov pre získavaním tržieb z predaja. Startupy veria, že ak získajú dostatočný počet užívateľov, tak v neskoršom čase vytvoria príjmové toky. Takmer 1/5 firiem nemá žiadnych zákazníkov, v medziročnom porovnávaní však počet startupov bez zákazníkov klesá. V týchto prípadoch firmy buď vyvíjajú svoj produkt, alebo podnikateľsky zamrzli a svojich užívateľov na nejaký čas odstavili od svojho produktu alebo služby. Väčšina firiem dosahuje niekoľko desiatok až stoviek užívateľov. Tento počet je už ideálnym na posúdenie životaschopnosti produktu. Takmer ¼ analyzovaných startupov dosahuje niekoľko tisíc užívateľov, pričom medziročne vzrástol ich počet v poslednom sledovanom období o viac ako 4,5%. Najrýchlejšie rastie počet užívateľov v medziročnom porovnaní posledného obdobia v náraste v kategórii o niekoľko stoviek. Celkový prehľad sa nachádza v Tabuľke 2.

Počet užívateľov (%)	**Fáza 1**	**Fáza 2**	**Fáza 3**
Žiadny	17,9	12,0	13,3
Niekoľko	13,4	17,2	8,0
niekoľko desiatok	28,4	29,3	26,7
niekoľko stoviek	14,9	15,5	21,3
niekoľko tisíc a viac	25,4	25,9	30,7
Spolu	100,0	100,0	100,0

Tabuľka 2 Počet užívateľov v troch po sebe idúcich obdobiach

Hlavným cieľom podnikania je vytvárať príjem. Tie startupy, ktoré dokážu od užívateľov generovať peniaze, si tak dokážu pokryť svoje fixné a variabilné náklady a tým dosiahnuť aj zisk pre majiteľov. Tempo rastu počtu platiacich zákazníkov v kategórii o tisíc a viac medziročne rastie a dosahuje približne rovnaké percento nárastu nových užívateľov. Celkový prehľad je v Tabuľke 3.

Počet platiacich zákazníkov	**Fáza 1**	**Fáza 2**	**Fáza 3**
Žiadny	32,8	24,1	33,3
Niekoľko	13,4	17,2	9,3
niekoľko desiatok	26,9	31,0	26,7
niekoľko stoviek	14,9	15,5	13,3
niekoľko tisíc a viac	11,9	12,1	17,3
Spolu	100,0	100,0	100,0

Tabuľka 3 Počet platiacich zákazníkov v troch po sebe idúcich obdobiach (v %)

Jedným z najdôležitejších ukazovateľov podnikateľského úspechu je vytváranie tržieb. Z analyzovaných firiem viac ako tretina startupov negeneruje žiadne tržby, ale pozitívne možno vnímať fakt, že ich podiel sa znižuje (Tabuľka 4). V porovnaní s predchádzajúcim rokom narástol počet firiem s príjmom, ako aj firiem s tržbami väčšími ako pol milióna €.

Rozsah	**2016**	**2015**	**koeficient rastu**
0	37,3	44	0,8
1 - 1 000	8	8	1
1000 -10000	9,3	9,3	1
10 000 - 50 000	14,7	17,3	0,8
50 000 - 100 000	10,7	10,7	1
100 000 - 500 000	10,7	8	1,3
500 000 a viac	9,3	2,7	3,4
Spolu	100	100	1

Tabuľka 4 Tržby v roku 2015 a 2016 (v %)

V tých startupoch, ktoré nedosahujú žiadne tržby, sme analyzovali dôvody ich nevytvárania. Najzávažnejším dôvodom je finalizácia distribučných kanálov. Druhým problémom je fakt, že produkt ešte nie je hotový a teda nie je možné ho umiestniť na trh. Dôležité je však spomenúť, že sekundárnym determinant môže byť zlyhanie tímu, čo respondenti uvádzali ako najhlavnejší iný dôvod, ako dôvod týkajúci sa priamo fázy vývoja produktu. Prehľad zobrazuje Tabuľka 5.

príčiny – produkt	**Ø percentuálna hodnota**
distribúcia produktu je vo fáze prípravy	48,8
produkt je vo fáze prípravy	38,6
zlyhanie distribúcie produktu	29,6
výrobná/prevádzková báza produktu je vo fáze prípravy	24,5
zlyhanie produktu	10,6
zlyhanie realizácie produktu	6,7

príčiny - iné okolnosti	**Ø percentuálna hodnota**
zlyhanie tímu	14,6
zlyhanie partnerov	5,8
zlyhanie financovania	4,7

Tabuľka 5 Príčiny nevytvárania príjmov

Pri hlbšom skúmaní príjmových tokov sme analyzovali viaceré spôsoby vytvárania príjmov. Z hľadiska vytvárania hodnoty väčšina startupov vytvára príjem predajom služby (40,00 %). Najčastejšie ide o jednorazový nákup zákazníka (kaderníctvo). Firmy sa v tomto modeli snažia o vytvorenie motívov na opakované nákupy. Druhou najpoužívanejšou formou generovania príjmu je predaj výrobkov, ktoré si firma sama vytvorila (17,11%). Tretí najväčší podiel vzorky majú startupy, ktoré ešte nenašli vhodný príjmový model (17,3%). Sú v štádiu hľadania formy príjmu, alebo o žiadnom príjmovom modeli neuvažujú. Platí zásada, že čo sa nemeria, to sa nedokáže inovovať, škálovať a rásť.
Niektoré z analyzovaných spoločností sa dobrovoľne rozhodli nehľadať príjmové toky a sú zamerané vo svojej fáze len na budovanie podnikateľského modelu, formovanie produktu a budovanie základne zákazníkov. Príkladom je firma Vectary, podľa ktorej monetizovanie spomaľuje rozvoj a zväčšovanie startupu a preto by sa mu zakladatelia mali venovať až v správnom čase. Rovnako je zastúpený aj príjmový model formou provízie, kedy startup sprostredkuje predaj služby (16,0 %) alebo výrobku (4,0 %) a tak získa podiel na transakcii. Celkový prehľad sa nachádza v Tabuľke 6.

Forma	**%**
predaj služby	40,0
predaj výrobku	22,7
žiadny model	17,3
sprostredkovanie predaja služby	16,0
sprostredkovanie predaja výrobku	4,0
Spolu	**100,0**

Tabuľka 6 Príjmové modely z hľadiska vytvárania hodnoty

Ďalším rozdelením sú príjmové modely z hľadiska generovania príjmu. Štandardný príjmový model, ktorý je zastúpený v takmer polovici startupov (49,3 %), je založený na jednoduchom predaji výrobku alebo služby výmenou za peniaze. Medzi obľúbené a vyhľadávané príjmové modely startup patrí freemiový model (29,3 %). Ten má viacero podôb. Pre všetky je spoločné poskytnutie základnej služby zdarma. Peniaze sa generujú napríklad predajom prémiových služieb užívateľom. Druhou formou freemiového modelu je generovanie príjmov od iného subjektu ako je užívateľ služby. Minoritne využívaným je prémiový model. Na rozdiel od freemiového, pri tomto modeli platia všetci štandardnú, zväčšia nižšiu sumu. Za každú prémiovú službu si doplácajú. Celkový prehľad je zobrazený v Tabuľke 7.

Forma	**%**
štandardný	49,3
freemiový	29,3
žiadny	17,3
prémiový	4,0

Spolu	**100,0**

Tabuľka 7 Príjmové modely z hľadiska generovania príjmu

Posledným meradlom je načasovanie platby (Tabuľka 8). Na rozdiel od jednorazového predaja služieb (41,3 %) si svoje miesto vytvára a neustále rastie forma predaja cez predplatné (29,3%). Ide o opakujúci predaj služieb, vďaka čomu si startupy zabezpečia síce menší (oproti jednorazovým predajom), ale stabilný príjmový tok, čo im umožňuje efektívnejšie pracovať s finančnými prostriedkami a investíciami. V niektorých prípadoch firmy dostanú zaplatené až po uskutočnení a vyúčtovaní danej služby (12,0 %).

Forma	**%**
platba pri predaji	41,3
predplatné	29,3
platba po vyúčtovaní	12,0
žiadny	17,3
Spolu	**100,0**

Tabuľka 8 Príjmové modely z hľadiska načasovania platby

Medzi hlavných ekonomických ukazovateľov úspešnosti patrí generovanie peňazí – tržby. V roku 2016 najvyššie tržby startupy dosahovali startupy v odvetví informačných technológií a v administratívnych a podporných službách. Najvyšší rast zaznamenali tržby v odvetví administratívnych a podporných službách (Tabuľka 9).

	Tržby 2015 (v % a v €)			**Tržby 2016 (v % a v €)**		
Odvetvie	**0**	**1-50 000**	**50 000 a viac**	**0**	**1-50 000**	**50 000 a viac**
poľnohospodárstvo, lesníctvo a rybolov	0,0	1,3	0,0	0,0	0,0	1,3
priemyselná výroba	5,3	6,7	2,7	3,9	8,0	2,6
dodávka vody, čistenie a odvod odpadových vôd, odpady a služby odstraňovania odpadov	2,7	1,3	0,0	1,3	2,6	0,0
stavebníctvo	1,3	1,3	0,0	1,3	1,3	0,0
veľkoobchod a maloobchod, oprava motorových vozidiel a motocyklov	1,3	2,7	1,3	1,3	1,3	2,6
informácie a komunikácia	8,0	6,7	9,3	9,3	6,6	9,3
finančné a poisťovacie činnosti	1,3	2,7	1,3	0,0	4,0	1,3
administratívne a podporné služby	8,0	8,0	5,3	6,5	2,6	12,0
verejná správa a obrana, Povinné soc.	1,3	0,0	1,3	1,3	0,0	1,3

zabezpečenie						
vzdelávanie	1,3	1,3	0,0	1,3	1,3	0,0
zdravotníctvo a soc. pomoc	2,7	2,7	0,0	2,6	2,6	0,0
umenie, zábava a rekreácia	9,3	0,0	0,0	7,8	1,3	0,0
ostatné činnosti	1,3	0,0	0,0	1,3	0,0	0,0

Tabuľka 9 Tržby vzhľadom na odvetvia

Hlavným cieľom každého podnikateľa je dosiahnuť zisk. Ten je odmenou pre majiteľov firmy. Je to hlavný dôvod, prečo investori majú záujem vložiť svoje peniaze do rizikových projektov. Z analyzovaných spoločností dosiahlo v roku 2016 zisk 16%, čo je o 1,3% menej ako v roku 2015. (Tabuľka 10).

Rozsah	**% v 2016**	**% v 2015**	**koeficient rastu**
menej ako -250 000	4,0	1,3	3,1
-250 000 až -100 000	9,3	9,3	1,0
-100 000 - -50 000	8,0	4,0	2,0
-50 000 - -10 000	10,7	10,7	1,0
-10 000 - -1	10,7	16,0	0,7
0	41,3	41,3	1,0
1 - 10 000	10,7	8,0	1,3
10 000 - 50 000	4,0	8,0	0,5
50 000 - 100 000	1,3	1,3	1,0
Spolu	**100,0**	**100,0**	**-**

Tabuľka 10 Zisk v roku 2015 a 2016

V ďalšej časti nášho výskumu sme analyzovali vytváranie zisku vzhľadom na spôsob vytvárania hodnoty. Najefektívnejším spôsobom sa javí predaj výrobku. Startupy, ktoré dokážu vyrobiť svoj výrobok, majú najvyššiu pravdepodobnosť dosiahnutia zisku. Týmto spôsobom podniká napríklad startup QuakeResQ, ktorý sa venuje problematike zemetrasení, ktoré ročne spôsobia celosvetovo škodu vo výške 12 106 miliárd amerických dolárov, zmenia životy viac než 4 miliardám ľudí a zabijú 63 tisíc ľudí. Týmto nešťastiam sa dá zabrániť len včasným varovaním. Tím v startupe QuakeResQ vytvoril krabičku Qbox, ktorá dokáže zachytiť prvotné seizmologické vlny, ktoré ľudské telo necíti. Následne cez server vyšle signál do mobilných telefónov, ktoré sú na ňu napojené a upozorní, kedy príde zemetrasenie, aké bude silné a čo má človek urobiť. Zakladateľ Martin pri analýze konkurencie zistil, že na svete existuje len niekoľko firiem, ktoré vyrábajú seizmologické detektory a predávajú ich za viac ako 50 000 €. Technologicky sú náročné, musia sa zakopať minimálne 12 m hlboko do zeme a dokážu detekovať zemetrasenie, až keď nastane. Preto sa rozhodol, že jeho hlavná konkurenčná výhoda bude spočítva v jednoduchosti výroby, vo veľkosti Qbox (zápalková krabička), minimálnej spotrebe energie a v nízkej cene výrobných nákladov. Martin chce predávať krabičku za 1% ceny konkurencie a teda za 59 € a to cez svoj web www.quakersq.com.
Najviac zastúpenými firmami, ktoré dosahujú stratu sú tie, ktoré buď predávajú alebo sprostredkujú predaj služby (Tabuľka 11).

	2015			2016		
Spôsob vytvárania hodnoty (%)	**strata**	**0**	**zisk**	**strata**	**0**	**zisk**
Predaj výrobku	2,7	12,0	8,0	4,0	12,0	6,7
Predaj služby	22,7	10,7	6,7	21,3	12	6,7
Sprostredkovanie predaja výrobku	2,7	1,3	0,0	2,7	1,3	0,0
Sprostredkovanie predaja služby	12,0	2,7	1,3	10,7	2,7	2,7
Žiadny model	1,3	14,7	1,3	4,0	13,3	0,0

Tabuľka 11 Výsledok hospodárenia vzhľadom na vytváranie hodnoty

Najúspešnejší model vytvárania tržieb majú hlavne startupy, ktoré predávajú vlastné služby. Dosahujú vyššiu efektívnosť ako pri predaji výrobku alebo sprostredkovaní predaja (Tabuľka 12).

	2015			2016		
Spôsob vytvárania hodnoty (%)	**0**	**1 – 50 000**	**50 000 a viac**	**0**	**1 – 50 000**	**50 000 a viac**
Predaj výrobku	12,0	6,6	4,0	8,0	9,3	5,3
Predaj služby	10,6	16,0	5,3	9,3	13,3	17,3
Sprostredkovanie predaja výrobku	1,3	1,3	1,3	1,3	0,0	2,6
Sprostredkovanie predaja služby	4,0	9,3	2,6	2,7	8,0	5,3
Žiadny model	16,0	1,3	0,0	16	1,3	0,0

Tabuľka 12 Tržby vzhľadom na vytváranie hodnoty

Najziskovejším modelom vzhľadom na spôsob generovania príjmu sú startupy, ktoré predávajú štandardne (Tabuľka 13). Príkladom je firma Speekle. Ide o herný softverový systém, ktorý čiastočne dopĺňa úlohu rodiča, logopéda a zábavnou formou pracuje s deťmi. Zároveň zaznamenáva pokroky, ako aj potenciálne problémy. Jednou z foriem je napríklad hra na posilňovanie jazyka, kde dieťa pomocou jazyka ovláda panáčika na obrazovke, alebo hru, kde dieťa uspí draka vyslovovaním „šššˮ. Je teda pomôcka, ktorá má byť neoddeliteľnou súčasťou terapie a pomáhať deťom s poruchami reči po celom svete. Využíva dve inovatívne technológie - deti môžu ovládať hry jazykom, alebo vyslovovaním hlások, a pritom cvičiť presne tak, ako potrebujú. Firma predáva tieto hry buď jednorazovo alebo formou predplatného.

	2015			2016		
Spôsob generovania príjmu (%)	**strata**	**0**	**zisk**	**strata**	**0**	**zisk**
štandardný	18,6	20,0	6,6	18,6	20,0	10,6
freemiový	18,6	6,6	1,3	17,3	6,6	5,3

prémiový	2,6	0,0	1,3	2,6	1,3	0
žiadny	1,3	14,6	9	4	13,3	0

Tabuľka 13 Výsledok hospodárenia vzhľadom na generovanie príjmu

Rovnako ako pri zisku, najvýhodnejšie sa javí forma štandardného príjmového modelu (Tabuľka 14). Týmto spôsobom generuje tržby napríklad startup Amena, ktorý ponúka na prenájom LED svetelné tabule, ktoré tvoria mobilný navigačný systém, využiteľný na kultúrne a spoločenské podujatia. Na tabuliach sa podľa potreby môžu objaviť aj rýchle informácie, krátke texty, symboly alebo len šípky na usmernenie návštevníkov v reálnom čase ich potreby. Tabule sú napájané z batérií, čo tento systém robí flexibilným. Systém sa využíva na crowd management, riadenie veľkého počtu ľudí pri rôznych podujatiach. Amena využíva model prenájmu. Teda zariadenia prenajíma organizátorom na vopred dohodnutý čas.

	2015			**2016**		
Spôsob generovania príjmu (%)	**0**	**1 – 50 000**	**50 000 a viac**	**0**	**1 – 50 000**	**50 000 a viac**
štandardný	20,0	18,7	10,7	14,6	18,6	16,9
freemiový	8,0	12,0	9,3	5,3	10,6	13,3
prémiový	0,0	2,7	1,3	1,3	1,3	1,3
žiadny	16,0	1,3	0,0	16	1,3	0

Tabuľka 14 Tržby vzhľadom na generovanie príjmu

Výber spôsobu platby a jej načasovania môže mať taktiež vplyv na ziskovosť modelu monetizácie. Platba pri predaji je najvyužívanejšou formou pri startupoch, ktoré dosahujú zisk (Tabuľka 15). Takúto formu využíva napríklad Power Coffee. Startup je zameraný hlavne na predaj kávy, ktorá vďaka technológii pomalého praženia a výslednej ani horkej, ani kyslej, ale zato plnej chuti dosahuje vysoké predaje. Obchod s kávou zároveň vykazuje vysoké zisky a to najmä kvôli vysokým maržiam. Spoločnosť okrem kavy taktiež predáva kokosový olej, MCT, kvalitnú bio čokoládu Fino de Aroma, či lahodné mandľové maslo. Vďaka spätnej väzbe od zákazníkov zakladateľ Dušan Plichta zistil, že vďaka vylepšeným potravinám je naozaj možné pozitívne meniť stravovacie návyky domácností. Aj preto sa rozhodol pre realizáciu konceptu Powerlogy. Dosiahol tak koncept vylepšených potravín pre aktívnych ľudí, ktorého poslaním je postupne zlepšiť stravovacie návyky aspoň 100 000 tisíc domácností na Slovensku a v Českej Republike.

	2015			**2016**		
Spôsob platby (%)	**strata**	**0**	**zisk**	**strata**	**0**	**zisk**
predplatné	17,3	5,3	6,6	20,0	6,6	2,6
platba pri predaji	14,6	17,3	9,3	12,0	17,3	12,0
platba po vyučtovaní	8,0	2,6	0,0	5,3	4,0	1,3
žiadna	1,3	16,0	1,3	5,3	13,3	0,0

Tabuľka 15 Výsledok hospodárenia vzhľadom na spôsob platby

Narozdiel od dosahovania zisku je najzastúpenejším spôsobom platby pri predaji. Len o niečo menej má zastúpenie predaja formou predplatného (Tabuľka 16). Príkladom je firma Piano Media - platobný systém, ktorý združuje internetové portály a umožňuje jednoduché spoplatnenie ich obsahu. Vznikol ako spoločný projekt firiem Etarget a Next Big. Na

Slovensku bol spustený 2. mája 2011. Zákazník za jedinú platbu získava prístup k prémiovému obsahu a službám na vybraných slovenských webových stránkach. Systém po roku od svojho vzniku ponúkal 60 obsahových služieb na 12 rôznych weboch. Službu Piano si zákazníci môžu objednať cez portál www.pianomedia.sk, na ktorom vyplnia jednoduchý formulár. Hneď po zaplatení získavajú prihlasovacie údaje a môžu systém používať. Paušálny poplatok je odstupňovaný podľa dĺžky predplatného (1,39 €/týždeň, 3,90 €/mesiac a 39 €/rok). Platí sa prevodom, vkladom na účet, platobnou kartou, zaslaním sms, systémom Paypal a novinkou je dobierka cez poštu, kde zákazník zaplatí pri prebratí zásielky - zmluvy. Príjmy z tržieb sú rozdelené nasledovne: 40% z platby zostáva médiu, na ktorom došlo k platbe, 30% sa rozdelí medzi média, ktoré užívateľ navštevuje (kľúčom k rozdeleniu je čas strávený na danom médiu) a zvyšných 30% zostáva Pianu na prevádzkovanie systému. Peniaze sú rozdelené medzi tie médiá, ktoré skutočne klient číta. Rozhoduje tak, ktoré z nich chce podporiť a tie následne získajú viac peňazí na zlepšovanie svojho obsahu.

	2015			**2016**		
Spôsob platby (%)	**0**	**1 – 50 000**	**50 000 a viac**	**0**	**1 – 50 000**	**50 000 a viac**
predplatné	5,3	12,9	12,0	5,3	10,6	13,3
platba pri predaji	16,0	17,3	8,0	12,0	16,0	13,3
platba po vyučtovaní	5,3	4,9	1,3	4,0	4,0	2,6
žiadna	17,3	1,3	0,0	16,0	1,3	1,3

Tabuľka 16 Tržby vzhľadom na spôsob platby

5 DISKUSIA

Startupy sú najväčšou zmenou v technologickom svete od začiatku 20. storočia. Nikdy nebolo tak ľahké založiť firmu a bariéry vstupu na trh tak minimálne, že vďaka príchodu služieb cloud computingu, ako sú Amazon EC2 a Rackspace, firmy vynakladajú len niekoľko stoviek dolárov za serverovú infraštruktúru, databázy a ich spracovanie. Pred niekoľkými rokmi to boli desiatky tisíc za rovnaké služby a tisíce ďalších na údržbu a prevádzku.

Podniky prosperujú, keď dosahujú zisk. Pre akékoľvek podnikanie možno zisk merať celkovými príjmami a odpočítaním celkových nákladov. Keďže celkové náklady na startupy sú oveľa nižšie vďaka vyššie uvedeným službám cloudu, umožňuje im to ľahšie dokázať, že ich podnikanie je úspešné a dôveryhodné, keď sa pokúšajú žiadať o rizikový kapitál. A čo sa týka nákladov, prinajmenšom je potrebné pokryť výdavky na zamestnancov, čo je jeden z dôvodov, prečo je startup "štíhly" a má menej ako 10 zamestnancov.

Ale aký je najlepší spôsob generovania príjmov? Existuje veľa starupov, ako je služba Instagram, služba zdieľania fotografií, ktorá nemá žiadny model generovania príjmov od užívateľov. Je tento príjmový model trvalo udržateľný?

Úspešný investor Dave McClure uvádza päť kľúčových determinantov investovania do startupov: trh, produkt, tím, zákazníci a príjmy. Môžu však startupy fungovať bez modelu príjmov, ak to kompenzujú dokonalým produktom, fungujúcim tímom, zameriavajú sa na správny trh a získavajú veľa užívateľov? 99% startupov potrebuje spoľahlivý a efektívny spôsob, ako si zarobiť peniaze, inak skončia. Ale zvyšné 1%, ktoré má excelentný produkt a excelentný tím, môže vdzorovať princípom mikroekonómie a dokáže uspieť aj bez explicitného modelu generovania príjmov.

Je veľmi pravdepodobné, že spoločnosť Instagram nemá v úmysle speňažiť svoje služby vôbec a namiesto toho používa svoj produkt ako odrazový mostík pre oveľa lepšie, väčšie veci. Ktokoľvek v Silicon Valley môže vyrábať výrobok alebo poskytovať služby, ale len

veľmi málo ľudí dokáže poskytovať tak excelentné služby ako Instagram. Beluga bol startup, ktorý sa špecializoval na mobilné rozhovory. Ten neskôr kúpil Facebook, a ich tím sa začlenil do spoločnosti Facebook a pomohol vyvinúť Facebook Messager pre mobilné aplikácie. GroupMe bolo ďalšie riešenie sociálnej komunikácie, ktoré neskôr kúpil Skype. Oba startupy sa odkúpili za niekoľkomiliónovú hodnotu.
Startup založený za účelom odkúpenia v niekoľkomiliónovej hodnote je legitímnou stratégiou napriek riziku, že nie je isté, či niekto bude mať v budúcnosti záujem o kúpu. Ak však startup vytvorí veľkú užívateľskú základňu, väčšie spoločnosti určite zoberú na vedomie tento fakt a kúpia startup iba preto, aby rozšírili rady svojich užívateľov. Šanca na tento model je vysoká, avšak neschopnosť platiť zamestnancov, servery a prevádzku v horizonte päť až desať rokov, kým startup dozreje na kúpu, je tou najväčšou bariérou dožitia sa šťastného konca.
Investori však preferujú vkladať peniaze do začínajúcich podnikov, ktoré sú škálovateľné a pripravené škálovať. Znamená to, že startup má potenciál násobiť výnosy s minimálnymi dodatočnými nákladmi, teda pripravenosť produktu s osvedčeným podnikateľským modelom, ktorý je pripravený okamžite vstúpiť na nové geografické oblasti a trhy. Softvérový produkt je klasickým príkladom škálovateľného riešenia, kde prvá kópia stojí neporovnateľné náklady voči neobmedzenosti ďalších kópií, ktoré možno rýchlo šíriť takmer bez prírastkových nákladov. Väčšina konzultačných služieb nie je ľahko škálovateľná, pretože musia byť poskytované odborníkmi a vyškoliť odborníkov je pomalé a drahé. Investori pravdepodobne nebudú toľko investovať do začínajúcich služieb.
Nie všetky startupy však potrebujú alebo chcú ďalej investovať, alebo vysoko škálovať podnikanie. Deväťdesiat percent malých podnikov vo svete dnes predstavujú rodinné podniky, ktoré sú veľmi úspešné, sú spokojné a podnikajú lokálne v malom. Je to strategické rozhodnutie. Ak však vášňou startupu je meniť svet, alebo dokonca ovládnuť odvetvie, škálovateľnosť je jediný spôsob, ako to dosiahnuť.
Mnohí tajne snívajú o budovaní nového Facebooku, nového Ubera, nového Airbnbu. Takmer každé veľké mesto sa teraz môže pochváliť jedným alebo viacerými startupmi. Technológie pretvárajú "narúšajú" doterajšie aspekty našej ekonomiky. Dnešné veľké podniky pripomínajú dinosaurov s artritídou, ktoré čoskoro pohltia startupoví cicavci s ostrými zubami. Denver, Santiago, Toronto, Berlín, "Silicon Glen", "Silicon Alley", "Silicon Roundabout" - zdá sa, že každé mesto chce byť startupovým centrom a sníva o tom, že sa stane " nové Silicon Valley“.
Ale č osa deje v samotnom údolí San Francisco? Tu sa zdá, že zlatý vek startupu už skončil. Objem investícií seed funding v roku 2017 začal klesať a Alphabet, Amazon, Apple, Facebook a Microsoft sa rozrástli z piatich veľkých technologických spoločností na päť najhodnotnejších verejne obchodovateľných spoločností na svete.
Žijeme v novom svete a favorizujú sa veľké podniky, nie malé. Najbližšie desaťročie ekonomiku ovládnu veľké podniky a korporátni manažéri, a nie startupy a podnikatelia. Dnešní absolventi chcú pracovať pre Marka Zuckerberga viac, než by nasledovali jeho kroky vo vlastnom podnikaní. Webový boom z roku 1997-2006 nás preniesol do spoločností Amazon, Facebook, Google, Salesforce, Airbnb atď., pretože internet bol novinkou a ktokoľvek mohol vytvoriť webové stránky, zarobiť milión, škálovať a slúžiť celému svetu. Boom smartphonu v rokoch 2007 - 2016 priniesol Uber, Lyft, Snap, WhatsApp, Instagram, Twitter atď., pretože to isté platí aj pre aplikácie pre smartfóny. Všetci prežívame obrovské celosvetové hardwarové revolúcie, rast internetu a prijatie inteligentných smart telefónov. Web je obsadený veľkým podnikaním; každý už má smartphone a veľkým spoločnostiam dominuje App Store. Nové technológie začínajú byť komplikované, finančne náročné a presadzujú sa v organizáciách, ktoré už majú obrovské množstvo zákazníkov a kapitál.
Všeobecne sa očakáva, že ďalšia vlna nastupujúcich technológií, ktoré sa stanú dôležité, pozostáva z umelej inteligencie, dronov, AR / VR, kryptomien, automobilov s vlastným

pohonom a internetu vecí. Tieto technológie sú pre kolektívne využitie veľmi dôležité, ale zároveň nie tak ľahko prístupné startupom ako weby a smartfóny.
Umelá inteligencia nevyžaduje najdokonalejšiu formu talentu, i keď je talent dôležitý, ale nepoužiteľný bez obrovského množstva správnych informácií a dat. A kto vlastní najlepšie data? Veľká päťka technologických firiem a ich čínski partneri Tencent, Alibaba a Baidu.
Hardvér, ako sú drony a príslušenstvo internetu vecí, sú náročné prototypy, vo všeobecnosti s nízkou maržou, cenovo náročné na vstup na trhy a veľmi drahé na škálovateľnosť – Fitbitu, Jawbone, Juicero, alebo HTC sú toho príkladom. Avšak startupy v týchto vodách majú oveľa väčšie šance na úspech, nech v ostatných spomínaných oblastiach.
Samoobslužné autá (na solárny pohon) sú ešte drahšie technológie, ako biotechnológie, sú to kapitálovo veľmi náročné platformy a boj o ne zvádzajú obrovské spoločnosti. Niekoľko startupov môže byť úspěšných a dobre odkúpených, nepredstavujú však silnú konkurenciu pre kľúčových hráčov.
AR / VR je už veľmi vzdialená platforma od optimistických predpokladov masového prijatia a je tak nákladným hardwarovým problémom, ako aj komplexným softvérovým problémom. Avšak HoloLens spoločnosti Microsoft, Cardboard od Google / Tango / ARCore a ARKit spoločnosti Apple naďalej úspešne budujú podnikanie na svojich existujúcich platformách.
Cryptomeny nerobia starupy hodnotnými; ide o to, aby sa samotné meny a ich decentralizované ekosystémy stali hodnotou. Trhová kapitalizácia spoločnosti Bitcoin výrazne prevyšuje úspech akéhokoľvek startupu v systéme Bitcoinu. To isté platí pre spoločnosť Ethereum. Kryptomeny pravdepodobne ovplyvnia veľa vecí v ekonomike.
A kde sa nachádzajú v týchto technológiach naše startupy? Zostávajú v pozore a bojujú o svoje miesto, v ideálnom prípade dúfajú, že ich získa väčšia spoločnosť, ideálne jedna z veľkej päťky. Zatiaľ čo niektoré zažívajú svoj bod zlomu a niekoré stále vznikajú, tieto javy budú oveľa vzácnejšie, než boli počas obdobia boomu webu a smartphonov.
.Ako príklad uvádzame Y Combinator, jedného z najznámejších akcelerátorov startupov. Pred piatimi rokmi, v roku 2012, jeho tri startupy boli dobre pripravené ovládnuť trhy a stali sa obrovskými spoločnosťami: Airbnb, Dropbox a Stripe. A tak sa aj stalo. A sú nezmenené do dnešného dňa. Trhom budú dominovať technologické titaniky, ktoré budú získavať čoraz väčšiu silu a startupy im budú čoraz ťažšie konkurovať. Veľké podniky už majú toľko koncentrovanej moci, napr. Amazon a Google sú tak dominantné, že existujú výzvy na ich reguláciu. Falošná správa zdieľaná na Facebooku dokáže ovplyvniť priebeh prezidentských volieb.
Startupy, ak vydržia, budú prinášať naďalej nové prístupy, sviežosť a zdravé spôsoby uvažovania v ekonomike, zatiaľ čo hegemónia titanikov spôsobí stagnáciu ich vlastného napredovania. Ale v nasledujúcich piatich až desiatich rokoch, vďaka povahe nových technológií, ktoré prichádzajú masovo, budú tieto veľké technologické titaniky stále viac narastať až kým nastane čas a kyvadlo sa opäť vráti.

6 ZÁVERY

Závery, ku ktorým sme pri analýze trojročných finančných údajov dospeli, nie sú prekvapením, ale vzhľadom na absenciu relevantných údajov o finančnom vývoji startupov, minimálne zaujímavé.
Firmy, ktoré dosahovali vyššie tržby sú tie, ktoré využívali predaj služby, štandardný model generovania príjmu a platbu pri predaji. Firmy, ktoré dosahovali vyššie zisky sú tie, ktoré využívali predaj výrobku, štandardný model generovania príjmu a platbu pri predaji. Tempo rastu nových užívateľov v tisíckach je takmer rovnaký ako tempo rastu nových zákazníkov v tisíckach. Žiadnych užívateľov nemá viac ako 10% startupov. Žiadnych zákazníkov nemá viac ako 30% startupov. Podiel startupov bez príjmu sa medziročne znížil o 7%. Najvyšší koeficient rastu tržieb je vo výške nad 500 000 EUR. Dôvody nevytvárania príjmu vo vzťahu

k produktu sú nefunkčné kanály a nedokončený produkt a vo vzťahu k iným faktorom je to zlyhanie tímu v pätine startupov. Až 25% startupov, ktoré generujú príjmy, nemá žiadny model monetizácie.
Start up je podnik alebo organizácia vytvorená na princípe hľadania opakovateľného a škálovateľného podnikateľského modelu, ktorý v plánovanom čase prostredníctvom plánovaného správania platiacich zákazníkov (niekedy aj klikajúcich užívateľov, získaných kontaktov alebo objemu zobrazenej reklamy) zabezpečuje plánové výnosy, tržby alebo zisk za cenu plánovaných nákladov (najmä ľudských, prevádzkových, priestorových, marketingových a na služby). Vo väčšine prípadov na ceste plnej míľnikov za rastúcimi výnosmi, známymi ako bodmi zlomu, je potrebný okrem kapitálu vlastných zdrojov aj cudzí kapitál, ktorého príchod častokrát zmení trajektóriu osudu atraktívneho startupu. Či sú to dotácie alebo anjelské investície, kapitálová efektívnosť sa prejavuje ako ťažisková schopnosť dosiahnuť úspech dlhodobo, nielen krátkodobo využiť rýchlu dostupnosť zdrojov. Špecifikum startupu začína práve tým, že nie je možné predvídať vývoj do vzdialenej niekoľkoročnej budúcnosti, ale sústavne bilancovať medzi tým, čo môžem robiť dnes na základe dosiahnutých míľnikov a čo si môžem dovoliť urobiť zajtra na základe transformovaných zdrojov. Život akéhokoľvek atraktívneho, praktického alebo moderného startupu bez schopnosti kalkulovať provotné náklady, odhadovať ročný rozpočet a aktualizovať vzniknuté javy na mesačnej a či trojmesačnej báze (tzv. burn rate) voči kapitálovej náročnosti nezachráni ani jeden ani žiadny dokonalo projektovaný príjmový model. Život startupu tak predstavuje tanec medzi dvoma svetmi – tým snovým, nabitým digitálnymi predstavami, potrebami, očakávaniami, plánmi a kvalitatívnymi míľnikmi a tým reálnym, kvantitatívnym číslom objemu príjmov, tržieb, výnosov a zisku generovaných z transformovaných zdrojov.
Slovenský startup zatiaľ jednoznačne nepreukázal ani jeden z možných scenárov vývoja diskutovaných v predchádzajúcej kapitole. Cyklí sa zatiaľ interne, s minimálnym presadením sa vo svete. Ak tretina startupov nemá vlastný príjmový model, avšak počty užívateľov a zákazníkov rastú v tých najvyšších škálach, možno očakávať, že malý slovenský trh sa predsa len stane atraktívnejší pre veľkých cloudových hráčov ako zdroj celkom príjemných inovatívnych produktov.

Poznámka
Tento príspevok je čiastkovým výstupom riešenia projektu VEGA MŠ SR 1/0019/15 „Podnikateľské modely a podnikateľské stratégie startupov“, ktorý vedie prof. Štefan Slávik, CSc. na Katedre manažmentu Fakulty podnikového manažmentu Ekonomickej univerzity v Bratislave.

Zoznam literatúry

1. STRNAD, O., NOVÁK, L. *Preference ve výrobě*. 2. vydání. Ostrava: Linde nakladatelství, s.r.o., 2009. 102 s. ISBN 80-56899-65-4.
2. HUNGER, D. L. – WHEELEN, T. L. 2008. *Concepts: Strategic Management and Business Policy*. Prentice Hall, 2008, s.110 ISBN: 978-0-13-232319-2.
3. AFUAH, A. 2003. *Business Models: A Strategic Management Approach.* New York: McGraw-Hill/Irwin, 2003, s.2 ISBN 978-0-07-288364-2.
4. MULLINS, J. - KOMISAR, R. 2009. *Getting to Plan B: Breaking Through to a Better Business Model.* USA: Harvard Business Press, 2009, s.5 ISBN 978-1-4221-2669-1.
5. BADAL, S.: Why So Many New Companies Fail During Their First Five Years. [online]. [cit. 2016-10-23]. Dostupné na internete: http://www.gallup.com/businessjournal/178787/why-new-companies-fail-during-first-five-years.aspx

6. BUCHLÁKOVÁ, L.: *Začínajúce firmy s dobrým nápadom nebudú platiť dane* [online] [cit. 2014-09-25] Dostupné na internete: <http://spravy.pravda.sk/ekonomika/clanok/326438-zacinajuce-firmy-s-dobrym-napadom-nebudu-platit-dane/>.
7. Early stage investing explained. [online]. [cit. 2016-09-13]. Dostupné na internete: http://www.eban.org/about-angel-investment/early-stage-investing-explained/The Top 20 Reasons Startups Fail. [online]. [cit. 2016-09-03]. Dostupné na internete: https://www.cbinsights.com/research-reports/The-20-Reasons-Startups-Fail.pdf
8. WAGNER, T. W.: *Five Reasons 8 Out Of 10 Business Fail*. [online]. [cit. 2016-11-03]. Dostupné na internete: http://www.forbes.com/sites/ericwagner/2013/09/12/five-reasons-8-out-of-10-businesses-fail/#5e1536415e3c
9. Prieskum Startup Ecosystem Survey 2016. [online]. [cit. 2016-11-03]. Dostupné na internete: https://home.kpmg.com/sk/sk/home/insights/2016/06/startup-ecosystem-survey-slovakia-2016.html
10. SWAYNE, E. L., DOODS, M.: *Encyclopedia of Sports Management and Marketing*. [online]. [cit. 2016-11-03]. Dostupné na internete: https://books.google.sk/books?id=mc9wCQAAQBAJ&pg=PT642&dq=revenue+model+definition&hl=sk&sa=X&ved=0ahUKEwik1LOyPDPAhVDAcAKHcEvBNUQ6AEIGjAA#v=onepage&q=desribes&f=false
11. Revenue model. [online]. [cit. 2016-11-03]. Dostupné na internete: https://en.wikipedia.org/wiki/Revenue_model
12. MULLINS, J. - KOMISAR, R. 2009. *Getting to Plan B: Breaking Through to a Better Business Model*. USA, Harvard Business Press, 2009, s.9 a 217 ISBN 978-1-4221-2669.
13. OSTERWALDER, A. – PIGNEUR, Y. 2009. *Business Model Generation*. Self Published, 2009, s.15-44 ISBN 978-2-8399-0580-0.
14. WILSON, F.: Revenue model types: the quick guide. [online]. [cit. 2016-11-03]. Dostupné na internete: http://www.bmnow.com/revenue-models-quick-guide/
15. How do they make money? [online]. [cit. 2016-11-03]. Dostupné na internete: http://rcs.seerinteractive.com/money/
16. LOAYZA, J.: 5 Business Models for Social Media Startups. [online]. [cit. 2016-11-03]. Dostupné na internete: http://mashable.com/2009/07/14/social-media-business-models/#0PvHSja.OkqO
17. GARZA, J.: The 10 Most Popula Startup Revenue Models. [online]. [cit. 2016-11-07]. Dostupné na internete: https://fi.co/posts/24031
18. ZWILLING, M.: How Do You Select A Revenue Model For Your Startup? [online]. [cit. 2016-11-03]. Dostupné na internete: http://blog.startupprofessionals.com/2014/08/how-do-you-select-revenue-model-for.html
19. RISTVEJ, J. 2010. Vedecké metódy. In *Trilobit.* ISSN 1804-1795, 2010, roč. 2, č.1/2010
20. GAVORA, P. a kol. 2010. *Elektronická učebnica pedagogického výskumu*. [online] Bratislava : Univerzita Komenského, 2010. [cit. 2015.09.15.] Dostupné na internete: http://www.e-metodologia.fedu.uniba.sk/. ISBN 978–80–223– 2951–4.
21. Štatistická klasifikácia ekonomických činností SK NACE. [online]. [cit. 2016-11-03]. Dostupné na internete: https://www.financnasprava.sk/_img/pfsedit/Dokumenty_PFS/Podnikatelia/Clo_obchodny_tovar/EORI/StatistickaKlasifikaciaEkonomickychCinnosti.pdf
22. Startitup.sk [online]. [cit. 2016-09-18]. Dostupné na internete: https://www.similarweb.com/website/startitup.sk

23. Nominácie Manažéra roka 2011: Michal Meško. [online]. [cit. 2016-07-10]. Dostupné na internete: http://www.etrend.sk/podnikanie/nominacie-manazer-roka-2011-michal-mesko.html
24. Martinus.sk, s.r.o. a CBR Martinus, s.r.o. - Výkaz ziskov a strát. [online]. [cit. 2016-09-10]. Dostupné na internete: https://www.finstat.sk/36440531/vykaz_ziskov_strata https://www.finstat.sk/45503249/vykaz_ziskov_strat
25. Štatistická klasifikácia ekonomických činností SK NACE. [online]. [cit. 2016-11-03]. Dostupné na internete: https://www.financnasprava.sk/_img/pfsedit/Dokumenty_PFS/Podnikatelia/Clo_obchodny_tovar/EORI/StatistickaKlasifikaciaEkonomickychCinnosti.pdf
26. https://www.forbes.com/sites/quora/2013/10/31/the-three-ways-to-make-a-lot-of-money-at-a-startup/#171270fe60b2

Kontaktné údaje

Ing. Natália Tarišková, Ph.D.
Ekonomická univerzita v Bratislave, Fakulta podnikového manažmentu
Dolnozemská cesta 1/b, 852 35 Bratislava
email: natalia.tariskova@euba.sk

Ing. Richard Bednár, Ph.D.
Ekonomická univerzita v Bratislave, Fakulta podnikového manažmentu
Dolnozemská cesta 1/b, 852 35 Bratislava
email: richard.bednar@euba.sk

POLICY MIX IN THE CONTEXT OF THE COMPETITIVENESS OF THE POLISH ECONOMY

Lena Grzesiak, Joanna Stawska

Abstract

The aim of the article is to characterise selected macroeconomic indicators from the policy mix area in the context of the competitiveness of the Polish economy. In order to achieve this aim, the following research methods are used: a review of the literature and statistical analysis method. The study includes an analysis of macroeconomic data for the years 2000-2016 on the policy mix and the competitiveness of the Polish economy. The results of the conducted analysis indicate that in the discussed period there was a statistically significant correlation between monetary and fiscal policy indicators in the background of improving indicators measuring the competitiveness of the Polish economy.

Keywords: *policy mix, competitiveness of economy, Polish economy*

INTRODUCTION

Monetary policy and fiscal policy have instruments to adjust the market mechanism. This combination is called policy mix[1]. Coordination of monetary policy and fiscal policy has special importance in emergency (crisis) conditions, although it is equally important in a stable economic situation of the country. Policy mix is also a common topic of many works on state strategies used to stimulate or stabilize[2] the economy and thus "create" competitive conditions for economic development. As Kuttner emphasizes, the combination in the IS-LM model is less crucial, but the overall level of aggregate demand is important and it can be shaped by fiscal policy, monetary policy or a combination of both policies, monetary and fiscal ones[3]. Proper monetary and fiscal policy conditions can have a significant positive impact on the country's economic development, as it is possible to stabilize and "improve" macroeconomic indicators. These indicators can influence the competitiveness of a given economy as a result of coordination of monetary and fiscal policy. The coordination of both policies contributes to greater stability of the financial system. Hence, the purpose of this article is to characterize selected macroeconomic indicators from the policy mix in the context of the competitiveness of the Polish economy.

1. THE COMPETITIVENESS OF ECONOMY

The term of competitiveness of economy is not an unambiguous concept in the literature[4]. For Organization for Economic Cooperation and Development (OECD) "competitiveness of the country is its ability to cope with international competition as well as to ensure a high rate of return on applied production factors and a high level of employment"[5]. Jedliński describes

[1] K. Flanagan, E. Uyarra, M. Laranja (2011), *Reconceptualising the 'policy mix' for innovation*, "Research Policy", no. 40, p. 703.

[2] K. Kuta, K. Rudnicki (2015), *Funkcjonowanie gospodarki otwartej - Model Mundella-Fleminga*, „Finanse I Prawo Finansowe", no 3, p. 61.

[3] K.N. Kuttner (2002), *The Monetary – Fiscal Policy Mix: perspectives from the U.S* , „Bank i Kredyt", no. 11–12, pp. 208–209.

[4] M. Falkus (2000), *Korean Business: Internal and External Industrialization*, „Business History", no. 42 (1), pp. 141-142.

[5] P. Misztal (2009), *Zdolność konkurencyjna Polskiej gospodarki w okresie 1998 - 2007 w świetle rankingów konkurencyjności międzynarodowej* [in:] Kwaśnik Z., Żukow W. (Eds.), *Aktualne wyzwania ekonomii*. Radom University, Radom, p. 55.

this concept in two senses, emphasizing the ability of a given economy to compete in international markets[6]: as the country's ability to produce and sell products or services as attractive in terms of price and quality when compared to the same products or services of another country (narrower approach); as an ability to gain benefits from the commercial cooperation with the countries abroad (broader approach).
Both approaches emphasize the ability to prolong long-term and effective growth and create a proportionately greater wealth of the country than competitors in the world market.
The greater the competitiveness of the country's economy is, the bigger the chance for the development of the economy and in a direct way - the citizens (the reinforcement of the economy results from the growth of the citizens' income)[7]. The opposite situation (the lack of the competitiveness) may mean the exclusion from the market, subjection and domination of the stronger economies.
Poland's competitiveness can be measured by the presence of Poland in world competitiveness rankings[8]. Over recent years, Poland's position in international comparisons and rankings of competitiveness has been steadily improving [9].The institutions preparing rankings analyzed the various criteria and areas of the policy mix (e.g. national income per capita, unemployment, economic performance, fiscal policy and monetary policy). Hence, profitable macroeconomic parameters and economic policy are often considered factors contributing to the competitiveness of a given country[10]. For example, the World Economic Forum publishes a ranking of global competitiveness. The Global Competitiveness Index (GCI), which measures the overall competitiveness of economy. This index is calculated on the basis of 100 indicators such as: macroeconomic environment, innovations, a degree of business development, labour market effectiveness, development of financial markets or higher education. In turn, International Institute for Management Development (IMD) prepares World Competitiveness Yearbook evaluating 55 countries based on 300 detailed criteria. The IMD Report takes into account the following factors: economic growth, employment, foreign trade results, price level, fiscal policy, company efficiency or infrastructure[11]. Table 1 presents the position of Poland in two selected rankings (GCI and IMD) within the years 2000 – 2016.

Table 1. The ranking according to the Global Competitiveness Index and International Institute for Management Development

Ranking according to Global Competitiveness Index (GCI)		International Institute for Management (IMD) – World Competitiveness Yearbook	
Years	Position in the ranking GCI	Year	Position in the ranking IMD
2000-2001	35	2000	40
2001-2002	41	2001	47

[6] B. Jedliński (2002), *Polityka handlu zagranicznego*, Wydawnictwo Uniwersytetu Gdańskiego, Gdansk, p. 72.
[7] I. Szamrej-Baran (2012), *Konkurencyjność gospodarki Polski na tle wybranych gospodarek Unii Europejskiej*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego. Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania", no. 25, p. 125.
[8] The reports that are considered the most well-known reports about the competitiveness of the economy include: The World Bank Annual Report, Doing Business, Report, Ernst & Young Europe Investment Attractiveness Report, Global Competitiveness Ranking by the World Economic Forum, Global Competitiveness Journal, Big Mac Index, International Institute for Management Development Report (*International Institute for Management Development*), Bertelsmann Annual Report. The analysis of Polish competetiveness position in some of above mentioned reports may be found in Report of Ministry of Economic Development „Entrepreneurship in Poland", October 2016, Warsaw, pp. 108-111.
[9] Poland 2015. Report Economy, Warsaw 2015, Ministry of Economy, p. 9.
10 R. Piasecki (2003), *Rozwój gospodarczy a globalizacja*, PWE, Warsaw, pp. 69-71.
[11] J. Stawska (2014), *Konkurencyjność polskiej gospodarki w kontekście ostatniego kryzysu finansowego*, „Przedsiębiorczość i Zarządzanie", Tom XV, Zeszyt 10, p. 376-377.

2002-2003	51	2002	45
2003-2004	45	2003	47
2004-2005	60	2004	48
2005-2006	51	2005	48
2006-2007	48	2006	50
2007-2008	51	2007	52
2008-2009	53	2008	44
2009-2010	46	2009	44
2010-2011	39	2010	32
2011-2012	41	2011	34
2012-2013	41	2012	34
2013-2014	42	2013	33
2014-2015	43	2014	36
2015-2016	41	2015	33
2016-2017	39	2016	33

Source: Own study based on: World Economic Forum, Global Competitiveness Reports for the periods 2000-2017 and World Competitiveness Yearbook for the periods 2000-2016.

The position of Poland in selected rankings (excluding very high positions in 2000 in both rankings) shows a positive trend (despite the decline in some years).

2. POLICY MIX AND ITS INSTRUMENTS AND ECONOMY

Fiscal and monetary authorities have different goals and preferences. The central bank is striving mainly to maintain a stable price level, whereas the government - to maximize real economic growth, taking into account the impact of the budget deficit on GDP growth and budgetary constraints[12]. The difference in the goals and preferences of the central bank and government makes stabilization of the economy in the short terms difficult. Reconciliation is the right choice for both authorities, because a conflict between monetary and fiscal policy can lead to an increase in the interest rate and budget deficit.

The effect of dual power results in autonomous decisions by monetary authorities and fiscal authorities[13] defined as policy mix and understood as a combination of decisions by monetary and fiscal authorities. The premise of this combination is to stimulate and maximize the development of the economy while minimizing unemployment[14] and ensuring price stability. Consequently, the coordination of both policies contributes to greater stability of the financial system.

The most optimal situation for the economy takes place when there is mutual complementation and support of the government and the central bank. Choosing the policy mix as the most appropriate combination of fiscal and monetary policy, taking into account the adopted criteria, takes into account the characteristics of both policies, although it should be remembered that even the most appropriate choice does not necessarily have the desired effect[15]. The key problem of coordination of monetary and fiscal policies is also the problem of concern for the entity that would be responsible for such coordination. Owsiak emphasizes that the issue of the person responsible for coordinating these policies is still not resolved on the basis of theory or practice. Hence, this problem requires further theoretical research and

[12] Kuttner K. N. (2002), *The Monetary …, op. cit.,* p. 208-209.

[13] O. Owsiak (2012), *O instytucjonalnych przesłankach trudności w koordynacji polityki monetarnej z polityką fiskalną*, „Zeszyty Naukowe PTE", no 12, Polskie Towarzystwo Ekonomiczne, Cracow, p. 48.

[14] J. Stawska (2014), *Wpływ policy-mix na wzrost gospodarczy i poziom bezrobocia w Polsce*, „Zeszyty Naukowe. Finanse, Rynki finansowe, Ubezpieczenia" no. 67, pp. 667 - 677.

[15] A. Wernik (2002), *Problemy polityki fiskalnej w kreowaniu policy mix, „*XXII konferencja naukowa NBP - NBP: reformy strukturalne a polityka pieniężna, Falenty.

the search for systemic solutions to develop the institutional basis for policy mix coordination[16].

Despite the complementary character of fiscal and monetary policies, there are significant differences between them. Each policy is conducted by independent authorities, which results in different objectives, met by using various instruments.

Fiscal policy is one of the basic forms of stimulating economic development. Governments have at their disposal various fiscal and legal instruments to stabilize the current state of affairs (taxes and other public levies, expenditures, public deficits, public debt, guarantees and loan guarantees to economic entities influencing the state budget to achieve specific fiscal and non-fiscal objectives).

It is not easy to conduct a good fiscal policy[17], mainly due to fiscal regulations (fiscal rules)[18]. Fiscal policy is largely influenced by political factors. Financing the health care system, pension insurance, combating unemployment or pro-family policy is bound to require budget spending. Rising costs outweigh the state budget and make the tax revenues not sufficient and as a consequence, the public deficit is increasing, leading eventually to excessively high public debt. Both monetary policy and fiscal policy are an essential part of the state's economic policy and they use the money supply for the pursuit of general economic objectives by shaping it to adapt to the needs of the economy. Monetary policy, inter alia through interest rate policy, affects internal demand, economic stability, and availability of credit for businesses and individuals. The central bank's actions focus mainly on maintaining a low inflation rate.

According *Monetary Policy Strategy beyond 2003* „(...) the monetary policy is targeted to attain a stable inflation rate of 2.5% after year 2003 with a permissible volatility band of ±1 percentage point either side of this target."[19]

The appropriate policy mix is an opportunity to minimize the effects of the crisis. Similarly, for example, between 2007 and 2012 (including the period during which the international financial crisis emerged), when the coordination of monetary and fiscal policy to a certain extent aroused the investment activity of companies, so that the effects of the crisis were not so severe.[20] Furthermore, some analyses indicate that, without the application of coordinated monetary and fiscal policy, the effects of the financial crisis could be more severe. [21]. It was particularly during the crisis that challenges for the policy mix emerged [22]. As a result, an increase in coordination of the policy mix was observed in the years 2007-2013 [23].

---

[16] O. Owsiak (2012), *O instytucjonalnych*…, op. cit., p. 48.

[17] The reason why it is not easy to conduct a good fiscal policy explains among others, J. Działo (2012), *Dlaczego trudno jest prowadzić "dobrą" politykę fiskalną?*, "Gospodarka Narodowa", no. 1/2; O. Issing. (2005), *The role of fiscal and monetary policies in the stabilisation of the economic cycle*, https://www.ecb.europa.eu/press/key/date/2005/html/sp051114.en.html (access 10 December 2017).

[18] income – their aim is to maintain stable taxes and limitation of rapid changes in their rates; cost– total budget costs could rise at a rate of not higher than inflation + 1 p.p.; public debt – limit for total public debt level expressed as a relation of debt to GDP cannot exceed 60%; public deficit– in a given period of time (fiscal period) budget deficit should not exceed 3% of GDP [in:] J. Działo, P. Urbanek, *Wpływ reguł fiskalnych na konkurencyjność gospodarek w nowych i starych krajach członkowskich UE. Wnioski z badań empirycznych,* [in:] Alina Grynia (ed.), *Wybrane aspekty rozwoju i konkurencyjności nowych krajów członkowskich Unii Europejskiej*, Faculty of Economics- Informatics, Bialystok University.

[19] Monetary Policy Strategy beyond 2003, NBP, Warsaw, February 2003, p. 12.

[20] J. Stawska (2014), *Znaczenie policy-mix dla działalności inwestycyjnej przedsiębiorstw w kontekście zrównoważonego rozwoju*, [in:] G. Borys, D. Dziawgo, L. Dziawgo i L. Patrzałka (Eds.) „Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu no. 330, pt. Finanse i rachunkowość na rzecz zrównoważonego rozwoju. Gospodarka - etyka – środowisko", Wroclaw, pp. 397 – 405.

[21] J. Stawska (2014), *Wpływ …*, op. cit., pp. 667 - 677.

[22] J. Stawska, L. Grzesiak (2014), *Challenges for policy mix in the context of the financial crisis. The case of Poland*, "Journal of Finance and Financial Law" no. 4/2014, Lodz, pp. 139.

[23] J. Stawska (2014), *Wpływ …*, op. cit., pp. 667 - 677.

Policy mix seems to be a relatively popular research topic in literature. The policy mix is examined inter alia from the point of view of the central bank's decision-making interactions with the government and their priorities[24], assessment the impact of monetary and fiscal policy on the level of investment[25], the state of public finances of a given country against the background of the European Union, the OECD or other world economies, including the context of the debt crisis[26].

3. RESEARCH METHOD

Authors assessing the competitiveness of the Polish economy in the context of the policy mix used the annual statistical data presented by the (Central Statistical Office - GUS) for the years 2000 - 2016. These years include the economic slowdown 2001-2002 and the recent financial crisis and post-crisis years. In order to conduct the analysis, the authors selected the following macroeconomic indicators: a) from the area of monetary policy: interest rates, money supply, inflation rate and exchange rate and b) from the area of fiscal policy: public debt and deficit ratios in relation to GDP, unemployment level and GDP dynamics.
The correlation between selected variables from the monetary and fiscal policy area was calculated to examine the existence of a statistically significant correlation in the policy mix in the economy. Competitiveness has been measured by such indicators as: GDP dynamics, inflation rate, budget deficit ratio, public debt ratio and exchange.

4. ANALYSIS OF MONETARY AND FISCAL POLICY MEASURES AGAINST THE COMPETITIVENESS OF THE POLISH ECONOMY

Below is presented an analysis of selected measures describing monetary and fiscal policy in Poland in the context of the competitiveness of the Polish economy. The analysis started with the inflation index or the monetary policy measure. The most common inflation measure is *consumer price index* (CPI). Its popularity results from the fact that it refers to consumption prices, which is the category of the largest part of GDP.
Inflation in Poland in the analyzed period remains at a low level (creeping inflation) with the exception of year 2000 when inflation amounted to 8.5%, otherwise it is generally within the inflation target (2.5% +/- 1p.p.), with some exceptions (such as 2004 - inflation of 4.4% - when Poland joined the European Union). The years 2007 - 2008 are a period of intensifying disturbances on global financial markets, hence inflation in 2007 was 4.0% and exceeded the inflation target.
Significant signs of price declines were observed in the second half of 2014. Deflation lasted until 2015, mainly due to the fall in oil prices (which reduced production costs and increased corporate profits). In the last two years of analysis (2015-2016), deflation initially remained and 2016 saw low inflation. The latest GUS report indicates that inflation in the first quarter of 2017 increased by 1.1% compared to the previous quarter and by 2% compared to the first quarter of 2016[27]. Inflation was accelerating at the beginning of 2017, which was mainly influenced by external factors[28]. The NBP's projection for the annual inflation rate YOY terms

[24] I. Woroniecka-Leciejewicz (2011), *Analiza policy-mix z uwzględnieniem interakcji decyzyjnych między bankiem centralnym a rządem i ich priorytetów*, „Zeszyty Naukowe Wydziału Informatycznych Technik Zarządzania Wyższej Szkoły Informatyki Stosowanej i Zarządzania. Współczesne Problemy Zarządzania", no. 1/2011.
[25] J. Stawska (2014), *Znaczenie ...*, op. cit., pp. 397 – 405.
[26] J. Stawska (2013), *Koszty obsługi długu publicznego w Polsce w kontekście kryzysu finansowego w Unii Europejskiej*, „Acta Universitatis Lodzensis, Folia Oeconomica no 279", Lodz University Press, Lodz, pp. 41 – 56.
[27] Statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne/.
[28] Monetary Policy Council, Inflation Report, March 2017, NBP, p. 15.

is 2.00%, which means that it continues to be inflationary. [29] Apart from inflation, the central bank may also to some extent influence the money supply, summarizes in Table 2.

Table 2. Total money supply, consumer price and service indices in the period between 2000-2016

Year	Total money supply (in bln PLN)	Total money supply (as) Data in % of GDP	Price-inflation ratio – a month ending the period (December of the previous year = 100)	Reference rate (%) at the end of the year
2000	300 757,3	40,3	8,5	19,00
2001	329 704,7	42,3	3,6	11,50
2002	326 124,9	40,2	0,8	6,75
2003	345 144,8	40,8	1,7	5,25
2004	377 534,5	40,5	4,4	6,50
2005	427 125,4	43,1	0,7	4,50
2006	495 309,5	46,3	1,4	4,00
2007	561 623,8	47,3	4,0	5,00
2008	666 231,3	51,8	3,3	5,00
2009	720 232,5	52,5	3,5	3,50
2010	783 648,5	54,2	3,1	3,50
2011	881 496,3	56,3	4,6	4,50
2012	921 412,5	56,5	2,4	4,25
2013	978 908,2	59,1	0,7	2,50
2014	1 059 015,3	61,6	-1	2,00
2015	1 154 992,6	64,2	-0,5	1,50
2016	1 265 675,2	68,4	0,8	1,50

Source: Own study based on: statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne (access 18 November 2017).

Money supply in Poland measured by the broadest aggregate - M3 - in the analyzed period is systematically increasing [30]. In Poland, the central bank uses a policy of low interest rates which should favor the economy (though not always). Currently (December 2017) interest rates have been not changed since March 2015 (Table 2).
In Poland, the exchange rate has been floating since 2000, which means that it is shaped by the balancing of supply and demand for currencies. Table 3 shows the exchange rates of USD, EUR and CHF in PLN.

Table 3. NBP official exchange rates (annual average) in the period between 2000-2016

Years	100 USD (in PLN)	100 EUR (in PLN)	100 CHF (in PLN)
2000	434,64	401,10	257,47
2001	409,39	366,85	243,10
2002	407,95	385,57	262,70
2003	388,89	439,78	289,05
2004	365,40	453,40	293,58
2005	323,48	402,54	259,99

[29] Official page of NBP, www.nbp.pl, access 10 December 2017.
[30] Ibidem.

2006	310,25	389,51	247,61
2007	276,67	378,29	230,35
2008	240,92	351,66	222,02
2009	311,62	432,73	286,58
2010	301,57	399,46	289,51
2011	296,34	411,98	334,84
2012	325,70	418,50	347,21
2013	316,08	419,75	341,00
2014	315,51	418,52	351,23
2015	377,01	418,39	392,00
2016	394,31	436,25	400,21

Source: Own study based on statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne/ (access 18 November 2017).

Observing the exchange rate data, we note that the PLN exchange rate strengthened significantly against the USD in 2007-2008, while against the EUR and the CHF it was observed in 2001-2002 and 2007-2008, which was probably influenced by the economic slowdown of 2001-2002 and the 2007-2008 financial crisis.
Next, statistical data from the area of fiscal policy are presented below. The analysis began with the most commonly used measure of economic growth, which is the dynamics of GDP, GDP in current prices, GDP per capita (table 4) This pace determines how fast the economy is developing.

Table 4. GDP Dynamics, GDP in current prices and GDP per capita expressed in the Purchasing Power Standard (PPS) in years 2000-2016

Years	GDP growth in %	GDP in billion PLN Current prices	GDP per capita in PPS (UE 28 = 100) according to GUS
2000	4,60	747 032	47
2001	1,20	779 975	46
2002	2,00	810 617	47
2003	3,60	845 930	48
2004	5,10	933 062	49
2005	3,50	990 468	50
2006	6,20	1 069 824	51
2007	7,00	1 187 605	53
2008	4,20	1 286 069	55
2009	2,80	1 372 208	60
2010	3,60	1 445 298	62
2011	5,00	1 566 824	65
2012	1,60	1 629 425	67
2013	1,40	1 656 895	67
2014	3,30	1 719 769	68
2015	3,80	1 799 392	69
2016	2,90	1 858 637	69

Source: Own study based on statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne/ (access 18 November 2017).

GDP growth in Poland declined considerably at the beginning of the analyzed period, i.e. in the years 2001-2002, which was related to the overall economic slowdown. Then, after a period of relatively high GDP growth in 2004, 2006-2007, this dynamics significantly decreased. Clear pace started to slow down in 2008-2009 and in 2012 - 2013 (although the growth was positive). In the first period, this could have been the result of the global financial crisis; in the second, the deceleration of public investment after Euro 2012 and the attempt to consolidate public finances (i.e. the reduction of public expenditure to stabilize the General Government sector).
The analysis of GDP per capita eliminates an impact of absolute population size facilitating comparisons between countries because it reflects purchasing power of each currency. GDP growth ratio per capita in PPS was presented in relation to the average for EU-28 (determined at the level of 100)
In the analyzed period, GDP per capita in Poland is lower than the EU average. GDP per capita, expressed according to purchasing power standards, systematically increased in the analyzed period, and in 2015 reached the level of 69% of the EU average.
Accelerating the pace of economic growth may cause a reduction in the unemployment rate, but it may also trigger inflationary pressure and a tendency to increase foreign debt. The drop in unemployment contributes to the growth of real disposable income and is certainly a positive phenomenon in the economy. The unemployment rate in Poland in 2016 is the lowest in the discussed period 2000 - 2016 (Table 5).
Maintaining the stability of the financial sector is crucial for the economy. The indicators presented in Table 5 define the state of the general government sector (General Government) in Poland.

Table 5. Government debt in relation to GDP and unemployment in the period between 2000-2016

Years	Deficit/surplus of government debt in % of GDP	Government debt in % of GDP	Unemployment rate in %	Unemployment rate in thous.
2000	-3,00	36,50	15,1	2 702,6
2001	-4,80	37,30	17,5	3 115,1
2002	-4,80	41,80	20	3 217,0
2003	-6,10	46,60	20	3 175,7
2004	-5,10	45,00	19	2 999,6
2005	-4,00	46,40	17,6	2 773,0
2006	-3,60	46,90	14,8	2 309,4
2007	-1,90	44,20	11,2	1 746,6
2008	-3,60	46,30	9,5	1 473,8
2009	-7,30	49,40	12,1	1 892,7
2010	-7,50	53,10	12,4	1 954,7
2011	-4,90	54,10	12,5	1 982,7
2012	-3,70	53,70	13,4	2 136,8
2013	-4,00	55,70	13,4	2 157,9
2014	-3,30	50,20	11,5	1 825,2
2015	-2,6	51,1	9,7	1 563,3
2016	-2,4	54,4	8,3	1 335,2

Source: Own study based on statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne/ (access 18 November 2017).

The presented data shows that the indicators of the public finance deficit and public debt clearly deteriorated in 2001-2005 (which probably resulted from economic deterioration). The process of economic deterioration obviously accelerated in 2008-2011, which probably resulted from the financial crisis. Due to the fact that in 2009-2010 the border of 3% the relation between public deficit and GDP (Maastricht criteria) was explicitly exceeded, excessive deficit procedure was initiated. It was held by the Council in June 2015[31], which was certainly helped by the pension reform. Higher budget revenues were provided mainly from taxes and fees. From January 2011 VAT rates were increased by 1 percentage point - from 22% to 23%, and excise duty increased several times. From this moment, the state of public finances has not deteriorated.

The above analyses of statistical data of variables related to monetary and fiscal policy were supplemented with an analysis of the correlation ratio between selected variables in the policy mix in Poland in the years 2000 - 2016. Table 6 shows the Pearson's correlation coefficients between variables related to monetary policy like: nominal reference interest rates of NBP (%) - [IR_NOM], inflation rate (CPI) in the Poland – month ending the period (December of the previous year = 100) – [INF], Money Supply as Broad Money M3– in million PLN – [M3_REAL], and the selected economic variables related to fiscal policy like: nominal GDP in current prices in PLN, adjusted by the CPI- [GDP_REAL]; GG deficit as % of GDP – [DEF%]; GG debt as % of GDP [DEB%]; GG Debt in million PLN adjusted by CPI [DEB_REAL] and the level of unemployment -– as at the end of the year [in thous.] – [UNEMP]. Time series [GDP_REAL] and [M3_REAL], [DEB_REAL] are in real terms using CPI index (I_1= 2000=100).

For each correlation, the p-value was estimated (assuming that a p-value greater than $\alpha = 0.05$ or $\alpha = 0.1$ was indicative of a statistically insignificant correlation). Prior to correlation analysis, variables were tested for stationarity with the ADF test (Dickey-Fuller test). Variables were transformed into first differences (if it was necessary), yielding stationary series and variables with a near-normal distribution. To perform the analysis, data spanning the years 2000-2016 were sourced from the website of the Central Statistical Office of Poland.

Table 6 Pearson's correlation coefficients for the selected variables for Poland, 2000-2016.

Variables	Pearson's correlation for Polish economy
IR_NOM v. d_ GDP_REAL	-0. 5708 (p-value= 0.0209)
d_M3_REAL v. d_ GDP _REAL	0.678 (p-value= 0.0039)
IR_NOM v. DEB%	- 0.8511 (p-value = 0.000)
d_M3_REAL v. DEB_REAL	0.599 (p-value= 0.0143)
d_M3_REAL v. DEF%	0.539 (p-value= 0.0314)
INF v. DEB%	- 0.486 (p-value= 0.048)
UNEMP v. IR_NOM	-0.608 (p-value = 0.009)
UNEMP v. d_M3_REAL	-0.797 (p-value= 0.0002)

Source: Own study prepared in GRETL program.

Analyzing directions and strengths of correlation between macro and micro-economic variables concerning the course of monetary and fiscal policy in Poland in the years 2000-2016 it must be noted that there are dependencies between these variables and significance of these interdependencies for the policy mix of the government and central bank. In the period between 2000-2016 a moderate negative correlation between a nominal NBP reference rate and first differences for the real GDP [-0,570] was observed. What was particularly important was a correlation between first differences for the real money supply M3 and first differences for the real GDP [0,678]. Then, a nominal NBP reference rate to a great extent is negatively correlated with public debt [-0,851]. Moderate correlations were observed between first

[31]In Poland, the excessive deficit procedure has been initiated since 2009.

differences for the real money supply M3 and appropriately real GG government deficit [0,599] and GG government deficit in % of GDP [0,539].
Moderate negative correlation is observed between inflation ratio and government debt as % of GDP in Poland [-0,486]. Conducted correlations also indicate that the level of unemployment is significantly correlated with a NBP nominal reference rate [-0,608], which suggests crucial interdependencies between one of fiscal authorities objectives (as the lowest unemployment rate) and interest rate as an instrument of monetary power. Unemployment was also correlated to a great extent with the first differences for the real money supply M3. These dependencies indicate a significant connection of tools and variables from monetary policy with key macroeconomic variables for government fiscal policy. It can suggest that in the analysed period there were crucial correlations between variables from policy mix area in Poland.

5. CONCLUSIONS

The issue of competitiveness of the economy is the result of decisions taken by the economy policy agents (central bank and the government) of a given country. Polish economy still expands steadily which was confirmed in this article by conducting the analysis of indicators and the research by the European Commission[32]. General economic perspectives are still positive, although the internal risk appears, related e.g. to unfavourable demographic perspectives.
In the analysed period the deterioration of the macroeconomic indicators resulted from the economic slowdown in 2001-2002 and the last financial crisis. It adjourned to the economies of the individual countries. This deterioration resulted from the setback of the standing of financial public, which definitely also adversely affected competitiveness of the economy. In the relationship of the threats for economy (as financial crisis), central bank and government decided to take anti-crisis activities. By characterisation of the given indicators about policy mix, the authors conducted the correlation analysis between indicators from policy mix. Results of the analysis point out at statistically important correlation between measures from monetary and fiscal policy against improving measures of competitiveness of the Polish economy, which may prove that mutual relevant impact of policy mix indicators positively affects the competitivenes of the economy.

Sources

1. Commission Staff Working Document. National Report, Poland 2016. http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_poland_pl.pdf ,access:18 June 2017.
2. DZIAŁO, J., *Dlaczego trudno jest prowadzić "dobrą" politykę fiskalną?*, „Gospodarka Narodowa", no. 1-2, 2012. 25-40 pp. ISSN 0867-0005.
3. DZIAŁO, J., URBANEK, P., *Wpływ reguł fiskalnych na konkurencyjność gospodarek w nowych i starych krajach członkowskich UE. Wnioski z badań empirycznych*, [in:] GRYNIA A. (Eds.), *Wybrane aspekty rozwoju i konkurencyjności nowych krajów członkowskich Unii Europejskiej*, Faculty of Economics - Informatics, Bialystok University. ISBN 978 – 609-95472-6-8.
4. FALKUS M. (2000), *Korean Business: Internal and External Industrialization*, „Business History", no. 42 (1). 141-142 pp. ISSN 0007-6791.
5. FLANAGAN, K; UYARRA, E; LARANJA, M. (2011), *Reconceptualising the 'policy mix' for innovation*, „Research Policy", no. 40. 702-713 pp. ISSN 0048-7333.
6. GUS: http://stat.gov.pl/wskazniki-makroekonomiczne

[32] Commission Staff Working Document. National Report – Poland 2016. http://ec.europa.eu/europe2020/pdf /csr2016/cr2016_poland_pl.pdf access 18 June 2017.

7. ISSING O. (2005), *The role of fiscal and monetary policies in the stabilisation of the economic cycle*, available at: https://www.ecb.europa.eu/press/key/date/2005/html/sp051114.en.html, access: 10 December 2017.
8. JEDLIŃSKI B. (2002), *Polityka handlu zagranicznego*, Wydawnictwo Uniwersytetu Gdańskiego, Gdansk. ISBN 8373260986.
9. KUTA K., RUDNICKI K. (2015), *Funkcjonowanie gospodarki otwartej - Model Mundella-Fleminga, „*Finanse i Prawo Finansowe", no. 3, 59-70 pp. ISSN 2391-6478.
10. KUTTNER K.N. (2002), *The Monetary – Fiscal Policy Mix: perspectives from the U.S* , „Bank i Kredyt", no 11–12, 207–235 pp. ISSN 0137-5520.
11. MISZTAL P. (2009), *Zdolność konkurencyjna Polskiej gospodarki w okresie 1998 - 2007 w świetle rankingów konkurencyjności międzynarodowej* [in:] KWAŚNIK Z., ŻUKOW W. (Eds.), *Aktualne wyzwania ekonomii*, Radom University, Radom, 55-70 pp. ISBN 978-83-61047-26-1.
12. Monetary Policy Council, Inflation Report, March 2017, NBP
13. Monetary Policy Strategy beyond 2003, NBP, Warsaw, February 2003
14. Official page of NBP, www.nbp.pl, access 10 December 2017
15. OWSIAK S. (2012), *O instytucjonalnych przesłankach trudności w koordynacji polityki monetarnej z polityką fiskalną*, „Zeszyty Naukowe PTE", no. 12, Polish Economic Society , Krakow. ISSN 1644-8979.
16. PIASECKI R. (2003), *Rozwój gospodarczy a globalizacja*, PWE, Warsaw. ISBN 83-208-1459-6.
17. Poland 2015. Report Economy, Warsaw 2015, Ministry of Economy
18. Report of Ministry of Economic Development „Entrepreneurship in Poland", October 2016, Warsaw,
19. Statistical data of GUS available at http://stat.gov.pl/wskazniki-makroekonomiczne/ (access 18 November 2017).
20. STAWSKA J. (2013), *Koszty obsługi długu publicznego w Polsce w kontekście kryzysu finansowego w Unii Europejskiej*, Acta Universitatis Lodzensis, Folia Oeconomica no. 279, Lodz University Press, Lodz. ISSN 0208-6018.
21. STAWSKA J. (2014), *Wpływ policy-mix na wzrost gospodarczy i poziom bezrobocia w Polsce*, Zeszyty Naukowe no 804, Finanse, Rynki finansowe, Ubezpieczenia no. 67, Szczecin University, 667 – 677 pp. ISSN 1733-2842.
22. STAWSKA J. (2014), *Znaczenie policy-mix dla działalności inwestycyjnej przedsiębiorstw w kontekście zrównoważonego rozwoju*, [in:] G. Borys, D. Dziawgo, L. Dziawgo i L. Patrzałka (red.) „Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu no. 330, pt. Finanse i rachunkowość na rzecz zrównoważonego rozwoju. Gospodarka - etyka – środowisko", Wroclaw, 397 – 405 pp. ISSN 1899-3192.
23. STAWSKA J., (2014), *Konkurencyjność polskiej gospodarki w kontekście ostatniego kryzysu finansowego*, „Przedsiębiorczość i Zarządzanie", Tom XV, Zeszyt 10, 373-388 pp. ISSN 1733-2486.
24. STAWSKA J., GRZESIAK L. (2014), *Challenges for policy mix in the context of the financial crisis. The case of Poland*, "Journal of Finance and Financial Law", no. 4/2014, Lodz, 137-150 pp. ISSN 2391-6478.
25. SZAMREJ-BARAN I. (2012), *Konkurencyjność gospodarki Polski na tle wybranych gospodarek Unii Europejskiej*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego. Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania", no. 25,125-142 pp. ISSN 2450-7733.
26. WERNIK A. (2002), *Problemy polityki fiskalnej w kreowaniu policy mix***,** XXII konferencja naukowa NBP - NBP: reformy strukturalne a polityka pieniężna, Falenty.

27. World Competitiveness Yearbook for the periods 2000-2016
28. World Economic Forum, Global Competitiveness Reports for the periods 2000-2017
29. WORONIECKA-LECIEJEWICZ I. (2011), *Analiza policy-mix z uwzględnieniem interakcji decyzyjnych między bankiem centralnym a rządem i ich priorytetów*, „Zeszyty Naukowe Wydziału Informatycznych Technik Zarządzania Wyższej Szkoły Informatyki Stosowanej i Zarządzania. Współczesne Problemy Zarządzania", no. 1/2011, 39-62 pp. ISSN 689-7293.

Contact

Dr Joanna Stawska, Assistant Professor
Central Banking and Financial Intermediation Department
Finance Institute
Economics and Sociology Faculty
University of Lodz
Poland
Email: joanna.stawska@uni.lodz.pl.
MSc. Lena Grzesiak
Faculty of Management
University of Lodz
Poland
Email: lena.grzesiak@uni.lodz.pl

THE LAFFER CURVE AND TRUMP TAX REFORM TO THE U.S. ECONOMY

Yen-Chih Lee

Abstract

This paper elaborates on the Laffer curve, the economic response to tax changes, and the major economic indicators before and after five major tax cut events in the U.S. history. Findings support that positive economic responses can be expected from Trump tax reform except that increasing government spending and deficit, rising interest rates, and fluctuating global economy may influence the final outcomes. Roughly, estimations suggest that from 2018 to 2022, average annual GDP growth rate, unemployment rate, and total tax revenue growth rate may reach to 3.23% - 5.09%, 4%, and 10%, respectively, if the average annual federal deficit can be controlled down below $543 billion and the interest rate will not rise too sharply. Furthermore, the corporate tax cut contributed about 34.8% of the total tax reduction, which is the highest in the U.S. history. Therefore, the above-stated projection may have underestimated the impact of Trump tax reform.

Keywords: *Tax reform, Trump tax cut, economic response, Laffer curve.*

1. LAFFER CURVE

Tax affects the economy and even the political stability. Back in the 18th century, the incidence of the Boston Tea Party happened because high tea taxes were imposed by the British Parliament on teas imported into the American colonies except those sold by East India Company. Outraged Americans disguised as Indians to throw hundreds of tea chests from East India Company's ships into Boston Harbor. Thereafter, retaliation from the British Parliament further united colonies and drove the war of independence (Hostory.com, 2009).

Laffer (2004) stressed that taxation has two effects. The arithmetic effect is to directly increase or decrease tax revenues caused by the increase or decrease of tax rates. The economic effect is to force negative or positive economic performances driven by the increase or decrease of tax rates. In other words, these two effects are opposite to each other. Efforts to collect more taxes tend to discourage workers' outputs and to lower products' sales. In contrast, cutting taxes is likely to strengthen people's consumption power and push up production and sales. Therefore, a bell-shaped Laffer curve was proposed to illustrate the effect of tax rate on the tax revenue. In principle, an increase of the tax rate from 0% upward will be accompanied by an increase of the tax revenue, but when the tax rate reaches a prohibitive range, an increase of the tax rate will result in a decrease of the tax revenue and the revenue can diminish completely when the tax rate reaches 100%. Additionally, the Laffer curve offers another usage in explaining the occurrence of a stagnant economy. In specific, a slow economy or depression could happen due to unpleasant high tax rates. Therefore, a significant tax cut could possibly resurge the economy.

Historically, the collection of the U.S. federal income tax started in 1913 with the top tax bracket of 7%. To support the World War I, the highest tax rate soared up to 77% in 1918 and then dropped down to 25% in 1931. Later, during the Great Depression, the tax rate was raised up to 63%. Furthermore, the World War II pushed the tax rate up to 94% in 1944 (Tax Policy Center, 2017a). Clearly, the needs of tax revenues for the participation of wars and for the passage of depression dominated the changes of the U.S. tax rate in those years.

In the following 1950s, 1960s, and 1970s, the tax rate declined slowly and remained above 70%. During this period, business recessions happened frequently in 1949, 1953, 1957, 1960, 1970, 1973-75, and 1980-1982 (Amadeo, 2017a). The Regan administration took the Laffer curve seriously and decided to cut the highest tax rate first to 50% in 1983 and then to 28% in 1988. In the meantime, the top corporate tax rate, which ranged from the historical high of 52% in 1952 to 46% in 1986, was cut to 34% in 1988 (Amadeo, 2017b).

During the 1990s, the increasing federal deficit drove the top income tax rate up to 39.6% and the corporate tax rate to 35%. Later, the Bush administration cut the top income tax rate to 35%, which was maintained until 2012. Then, the Obama administration enacted the American Taxpayer Relief Act of 2012 to increase the highest income tax rate back to 39.6%. In addition, the Patient Protection and Affordable Care Act added an additional 3.8% to taxpayers meeting certain investment criteria to make the maximum federal income tax rate up to 43.4% (Bradford Tax Institute, 2017). In the meantime, the corporate tax rate remained at 35%.

Overall, before Trump tax reform in 2017 (Floyd, 2017), notable tax rate changes happened a few times in the U.S. history. Some events happened for collecting more tax revenues to meet immediate federal budget demands. Some occurred for stimulating economic activities. Trump tax cut has been anticipated with a desired high annual GDP growth rate in the coming years (Bryan, 2017). Still, it may be affected by the design of the tax cut plan, the increasing trend of the interest rates, and the continuous growth of the government's spending. In the following, a preliminary assessment of Trump tax cut to the U.S. economy is presented.

2. ECONOMIC RESPONSES TO TAX CHANGES

Tax changes can either be related to prospective economic conditions or be associated with exogenous causes. Romer and Romer (2010) noted that exogenous tax actions were motivated for long-term goals, and a tax increase equivalent to 1% GDP would reduce nearly 3% of GDP over the next three years. In other words, the tax multiplier was about 3, which was close to 2.6 obtained by Perotti (2007) but was different from the value of 1 obtained by those adopting the structural vector autoregression approach (Chahrour, et al., 2012). In the meantime, Cloyne (2013) adopted a similar approach to study narrative evidence from the U.K. and noted that 1% cut in taxes could increase GDP by 0.6% and up to 2.5% over three years. In other words, the positive and negative economic effects caused by exogenous tax changes could be identified and estimated from the past economic responses.

Mertens and Ravn (2013) further confirmed that tax cuts did create important influence on the economy. They revealed that a cut in personal income taxes by 1% could create an impact of 1.4% growth of the real GDP per capita and up to 1.8% after three quarters. Also, it was estimated that 1% decrease in personal tax rates could lead to a rise of 0.3% of employment per capita and up to 0.8% after five quarters, and it could simultaneously cause a rise of 0.4% of working hours per worker for the first year. In addition, they pointed out that a cut in corporate income taxes by 1% could create an impact of 0.4% growth of the real GDP per capita and up to 0.6% after one year. Surprisingly, past experiences showed that cuts in corporate tax rates did not have immediate impacts on employment and on working hours per worker, although they tended to stimulate private sector investments. Differences found in this study suggested that being a dominant contributor to total federal tax revenues, cuts on personal income tax tended to generate a stronger response than those imposed on the corporate tax.

In addition, Mertens and Ravn (2013) estimated that the tax multiplier was about 2 for the personal income tax and it could increase up to 2.5 in the third quarter. As to the tax multiplier for the corporate income tax, it was approximately close to zero. In the meantime, through capturing the distribution effect, Lizarazo et al. (2017) discovered that a tax cut for the middle class with a substantial reduction of the federal spending could be associated with a personal income tax multiplier of 1.1, and the multiplier could increase up to 3 when tax cuts applied on higher income groups. Also, they noted that the size of tax multiplier was very sensitive to the level of interest rates.

Interestingly, Mertens and Ravn (2012) distinguished tax change events into groups with unanticipated and anticipated tax shocks based on days between the date of tax changes announcement and the date of implementation. Cases with less than 90 days preparation before the implementation date were with unanticipated tax shocks and they tended to generate significant economic responses for a continuation up to 2.5 years. The largest response was to create roughly 10% increase in investment after a 1% tax cut. As to cases with more than 90 days preparation before the implementation, they were with anticipated tax shocks and signs of weaker economic activities before the implementation. The 1980s' recession was particularly attributed to the anticipation of the Reagan tax cut plan. Still, stimulations on economy happened after tax changes were implemented. In other words, either unanticipated or anticipated, positive economic responses would happen after tax cut shocks but with different levels of strength.

Overall, numerous researchers have confirmed the effectiveness of tax cuts on stimulating the economy and offered various approaches to estimate the corresponding economic responses. The tax multiplier has been estimated to be about 1 - 3 and the effects are stronger to personal income tax rate cuts than to corporate tax cuts. In addition, if tax cuts applied mainly to higher earning groups, the economic response would be stronger than those applied specifically to middle-income groups. Furthermore, responses to unanticipated and anticipated tax shocks were found to be significantly different.

3. PAST MAJOR TAX CUTS IN THE U.S. AND ECONOMIC INDICATORS

In this section, major economic indicators recorded before and after five major tax cut events in the U.S. are analyzed so as to understand what to be expected if Trump tax cut were in place.

The first major tax cut in the U.S. history happened after World War I when the peak income tax rate was 77% in 1918 (Tax Policy Center, 2017a). After the War, a recession happened in 1920 and 1921 with an annual GDP growth rate of -2.25% and -4.12%, respectively. Thereafter, President Warren G. Harding signed the Budget and Accounting Act of 1921 to start the U.S. formal budgeting process and to cut the peak tax rate from 73% in 1921 to 58% in 1923 Later, President Calvin Coolidge continued the tax cut effort to lower the peak tax rate to 25% in 1925 (KENSMIND, 2014) (Table 1). Laffer (2004) considered this event to be qualified as a successful tax cut effort because the average annual real GDP growth rate increased from 2% during 1921 - 1924 to 3.4% during 1925 - 1928 when the tax cut was fully in place. Here, a four-year period before and after the tax cut has been selected for comparison as suggested by Laffer (2004). In addition, the average annual unemployment rate decreased from 6.5% to 3.1% while the average annual federal budget growth rate increased from -9.2% to 0.1% and the average annual federal surplus increased slightly from $0.85 billion to $1.06 billion (Table 1). Clearly, the effective tax cut was accompanied with a significant federal

budget cut, and these efforts were helpful to improve the economy, the job market, and the federal surplus.

The second major tax cut in the U.S. history happened after World War II. In 1944, the highest income tax rate was 94%, and the ratio of the total tax revenue to GDP had reached 20.5% which was the highest in the U.S. history (Tax Policy Center, 2017b). Lawmakers passed the Revenue Act of 1945 and the Tax Adjustment Act of 1946 to cut the peak tax rates to 86.45% and to slash $5.9 billion tax liabilities. In 1947, lawmakers tried to further cut tax, but the attempt was vetoed twice by President Truman. Later, the Revenue Act of 1948 was finally enacted after overriding Truman's veto, which lowered the peak tax rate to 82.13% and reduced $4.6 billion tax liabilities (Yang, 2007). The ratio of the total tax revenue to GDP was then lowered to 14.1% in 1950. Unfortunately, Korean War happened in 1950 and an economic recession happened after the War. Thereafter, the peak tax rate rose to be above 91% from 1950 to 1963 (Tax Policy Center, 2017b). Clearly, based on the criteria set up by Laffer (2004), the tax cut effort initiated by lawmakers during 1945 – 1948 might not have sufficient time to generate notable economic outcomes. Still, by adopting the three-year period instead of the four-year period used by Laffer (2004), Table 1 shows that the average annual real GDP growth rate increased from -4.6% during 1945 – 1947 to 4.1% during 1948 – 1950, while the average annual unemployment rate worsened from 3.2% to 5.0%. In the meantime, the decreasing trend of both the federal budget and the total tax revenue had slowed down after the tax reduction, and the federal deficit of $19.2 billion was improved to a surplus of $2.3 billion. These results suggested that the efforts of the budget cut and tax cut did initiate improvement in the economy and the federal deficit although the labor market was not benefited within a short period of time.

The third major tax cut was initiated by President Kennedy who proposed an impressive tax reform in 1963 to cut the peak income tax rate from 91% to 65% and the corporate tax rates from 52% to 47%. Later, the Revenue Act of 1964 was approved after Kennedy's death to reduce nearly $11.5 billion tax liability and to lower the peak income tax rate to 70% and the top corporate rate to 48% in 1965 (Caplin, 1964). Laffer (2004) commented that this instance was a successful tax cut event because the average annual GDP growth rate increased from 4.7% during 1961 - 1964 to 5.2% during 1965 - 1968, the average annual unemployment rate decreased from 5.5% to 3.8%, and both the growth rates of the federal budget and the total tax revenue increased after the tax cut (Table 1). Although the tax cut was not accompanied with a budget cut as occurred in the previous two cases, the tax reduction effort effectively generated more jobs and initiated more business activities favorable to the economic growth and an increase of the total tax revenue. The only notable shortcoming was a moderate increase of the federal deficit from $5.1 billion to $8.4 billion which might not affect the economy but indicated a steady increase of the federal spending.

Table 1: Economic indicators before and after each tax cut event in the U.S.

				Average annual				
	Peak income tax rate[1]	Corporate tax rate[2]	Ratio of total tax revenue to GDP[3]	Real GDP growth rate[4]	Unemployment rate[4]	Federal budget growth rate (inflation adjusted) [5]	Total tax revenue growth rate (inflation adjusted) [6]	Federal surplus/ deficit (billion) (inflation adjusted) [5]
1st major tax cut								
Before (1921–1924)	73% (1921)	12.5% (1921)	-	2.0%	6.5%	-9.2%	-	0.85
After (1925-1928)	25% (1925)	13.5% (1927)	-	3.4%	3.1%	0.1%	-	1.06
2nd major tax cut								
Before (1945-1947)	94% (1945)	40% (1945)	19.9% (1945)	-4.6%	3.2%	-11.0%	-8.1%	-19.2
After (1948-1950)	82% (1948)	38% (1948)	14.1% (1950)	4.1%	5.0%	-1.8%	-0.2%	2.3
3rd major tax cut								
Before (1961-1964)	91% (1963)	52% (1963)	17.2% (1963)	4.7%	5.5%	3.9%	2.6%	-5.1
After (1965-1968)	70% (1965)	48% (1965)	16.4% (1965)	5.2%	3.8%	5.0%	9.0%	-8.4
4th major tax cut - 1st phase								
Before (1979-1982)	70% (1979)	46% (1979)	19.1% (1981)	0.9%	8.1%	1.2%	-2.6%	-60
After (1983-1986)	50% (1983)	46% (1983)	16.9% (1985)	4.9%	7.3%	2.5%	3.5%	-128
4th major tax cut - 2nd phase								
After (1987-1990)	28% (1988)	34% (1988)	17.4% (1990)	3.3%	5.7%	3.0%	3.3%	-90
5th major tax cut								
Before (1999-2002)	39.6% (1999)	35% (1999)	20.0% (2000)	2.9%	4.9%	-0.43%	-2.7%	-83
After (2003-2006)	35% (2003)	35% (2006)	15.6% (2004)	3.2%	5.1%	4.0%	7.1%	-339
6th major tax cut								
Before (2014-2017)	39.6% (2014)	35% (2014)	18.3% (2015)	2.3%	5.2%	3.3%	3.7%	-543

[1]Tax Policy Center (2017a); [2]Tax Policy Center (2017c); [3]Tax policy Center (2017b); [4]Amadeo (2017c); [5]FRED (2017);
[6]Total tax revenue includes the federal, state, and local tax revenues (bea, 2017).

The fourth major tax cut was driven by President Reagan who adopted the theory of supply-side economics to take tax cut as an effective driver to create more jobs, produce more goods, and invest more in business. The Economic Recovery Tax Act of 1981 cut the peak income tax rate to 50% and reduce $38.3 billion tax liability (Ahern, 2004). The Tax Reform Act in 1986 lowered the highest income tax rate to 28% and cut the top corporate tax rate from 46% in 1986 to 34% in 1988. Over a five-year period, individual tax was reduced by $122 billion while the corporate tax would increase by $120 billion due to changes to the corporate tax system (Atkins, 2005). Laffer (2004) praised highly Regan's tax reform by pointing out that the average annual GDP growth rate of 0.9% during 1978 - 1982 was raised to 4.9% between 1983 and 1986, and the average annual total real income tax revenue growth rate increased from -2.6% to 3.5% while the average annual unemployment rate decreased slightly from 8.1% to 7.3% (Table 1). In other words, during the first phase of Regan tax cut, with no significant reduction of the federal budget and a clear expansion of the job market, improvements in the economic growth and an increase of the income tax revenue were quite obvious. In the meantime, the federal deficit increased from $60 billion to $128 billion which might have played another influential role on the economy.

During the second phase of Regan tax cut, which was between 1987 and 1990, the average annual GDP growth rate was 3.3%, the average annual unemployment rate was 5.7%, the average annual federal budget grew by 3%, the average annual total real income tax revenue growth rate was 3.3%, and the federal deficit was down to $90 billion (Table 1). Clearly, the job market had expanded and the tax revenue continued to grow, even though the economic growth rate slowed down a little bit. Overall, events happened during these two tax cut periods seem to be in accord with the projection of the Laffer curve that the economic effect overrides the arithmetic effect when the tax cut was exercised in the prohibitive tax rate region (Laffer, 2004).

The fifth major tax cut happened when President George W. Bush signed the Economic Growth and Tax Relief Reconciliation Act of 2001, Job Creation and Worker Assistance Act of 2002, and the Jobs and Growth Tax Relief Reconciliation Act of 2003 into law when an impressive budget surplus occurred and the purpose of the tax cut was to return the surplus to American households (Greenberg, 2016). The ratio of the total tax revenue to GDP was 20% in 2000 and it was close to 20.5% in 1944 at the end of World War II while offering a justification to Bush tax cut including to lower the top income tax rate from 39.6% to 35% until 2012, various tax deregulations, and a reduction of $185.8 billion tax liabilities (Ahern, 2004). Furthermore, Bush tax cut was established with a 10-year expiration date set at the end of 2010, which was later extended to 2012 by President Obama so as to avoid raising taxes during a weak recovery period after the financial meltdown in 2008 (Dubay, 2013). For sure, due to the happening of the 2008 financial crisis, the effectiveness of Bush tax cut to cover for a long period of time was clearly questionable. Therefore, in this case, the four-year period before and after the tax cut is still applied. Table 1 shows that after Bush tax cut, the average annual GDP growth rate increased slightly from 2.9% to 3.2% while the unemployment rate worsened slightly from 4.9% to 5.1%. In the meantime, the average annual total income tax revenue grew from -2.7% to 7.1% which covered the increase of the federal budget from -0.43% per year to 4% per year. Strikingly, the average annual federal deficit increased from $83 billion to $339 billion which might have contributed to the economic growth in the short run but put pressure on the federal spending and

future tax hike. Overall, the economic effect of Bush tax cut was not as strong as in previous cases.

Among the selected five major tax cut events in the U.S. history, there were four events accompanied with notable signs of economic growth after the implementation of tax reduction bills. In these cases, increases in the GDP growth rate were often accompanied with a decrease of the unemployment rate and an increase in the total income tax revenue growth rate and the federal budget growth rate. Since the contribution of the tax revenue to GDP always decreased after tax cut, the growth of the total income tax revenue supported the idea behind the Laffer curve that in the prohibitive tax rate range, the economic effect of a tax cut will overcome the accompanied arithmetic effect. In other words, a tax cut could stimulate investments, works, and productions. Hence, it will drive the economic growth and an increase of income tax revenues.

Significantly, Bush tax cut did not generate impressive economic outcomes as in other cases even though three bills were enacted consecutively in three years and the tax cut was extended to 2012. A large increase of the federal deficit after Bush tax cut suggested that even the observed increase of the GDP growth rate might not be caused directly by the tax cut. This experience signifies that the effectiveness of tax cut on the economy might be affected by the design of the tax cut plan and the federal spending. For instance, the level of reduction of the peak income tax rate in the Bush tax cut plan was not as large as those in previous cases, and the corporate tax rate was not lowered at all. These changes could have hampered the effectiveness of tax cut. Also, a sharp increase in the federal spending is clearly not a right move when a tax cut plan is in place. The accompanying large increase of federal deficit could have offset the economic effect of a tax cut (Fazzari et al., 2017).

4. TRUMP TAX REFORM TO THE ECONOMY

By the time this paper is written, two versions of Trump tax bills were passed by the House and the Senate of the U.S. These bills are scheduled to be reconciled into one single version to be signed by President Trump by Christmas of 2017 and to take effect on January 1, 2018. The effort will certainly affect the U.S. economy in the coming years.

In general, on reforming the personal income tax, Senate bill intends to cut the top income tax rate from 39.6% to 38.5% while keeping the original seven tax bracket. House bill moves up the lowest marginal rate from 10% to 12% while changing the current seven tax brackets into four. Most crucial reduction lies in doubling the standard deduction, eliminating most itemized deductions, doubling the estate tax exemption, increasing the child tax credit, and eliminating the alternative minimum tax in the House bill. Higher income groups will benefit most from those changes while residents in high-tax states and home buyers relying on a mortgage will be affected due to limits on the deductions for state taxes, property taxes, and mortgage interest (Amadeo, 2017d).

On reforming the corporate tax, the maximum tax rate will fall from 35% to 20% except that Senate wants to delay the cut until 2019. In the meantime, in addition to various regulation changes, the maximum small business tax rate will also drop from 39.6% to 25%. As to the current worldwide taxation system, it will be replaced by a territorial taxation system generally adopted by major industrialized countries in recent decades (Lee, 2017). A one-time 14.5% tax

on cash and 7.5% tax on equipment will be imposed on companies' repatriated overseas profits (Amadeo, 2017d).

Approximately, the expected reduction of tax revenue from 2018 to 2021 will be about $727.3 billion (Joint Committee on Taxation, 2017a) which is close to 0.93% of the projected GDP (White House, 2017). By adopting the tax multiplier of 1 - 3, GDP could grow additionally by 0.93% - 2.79% (on top of the current 2.3% growth rate) in the coming four years, which is slightly larger than projected 0.8% by Joint Committee on Taxation (2017b) and is close to what anticipated by the Trump administration of 3% - 5% GDP growth rate (Bryan, 2017).

In the meantime, among the expected tax reduction of $727.3 billion, 65.2% will come from the personal income tax cut, and 34.8% from the corporate tax cut. Actually, the contribution of the corporate tax cut will grow with time because the one-time tax on companies' repatriated overseas profits will diminish eventually (Joint Committee on Taxation, 2017a). Clearly, the above-stated projections of the GDP growth based on past experiences may be underestimated because the effect of corporate tax cut on the economy may not be probably evaluated. The reason is that for a long run, personal tax revenues were about four times the size of the corporate tax revenues (Tax Policy Center, 2017b). The study did by Mertens and Ravn (2013) also indicated that there was a roughly four times difference in the economic response between the personal tax cut and the corporate tax cut. Therefore, tax cuts in the past hardly focused on the corporate tax cut. In other words, most modelling works based on past data may have generated outputs that are biased with a little contribution from the corporate tax cut.

Specifically, it can be expected that a cut of the peak corporate tax rate from 35% to 20% will initiate strong incentives for companies to invest, to hire, and to produce. Most of all, companies are more keen to the business environment than individuals and are very likely to propose various investment plans right after the implementation of Trump tax plan. In addition, being characterized as an unanticipated tax shock with focuses on reducing tax burdens of higher income groups, an increase of GDP growth rate larger than 0.93% - 2.79% in the coming four years can optimistically be anticipated. Still, increasing government spending and deficit, rising interest rates, and fluctuating global economy are influential factors that may hinder the positive economic effects generated from Trump tax reform. Otherwise, in respect to the economic indicators during 2014 - 2017 (shown in Table 1), average annual GDP growth rate, unemployment rate, and total tax revenue growth rate may turn to 3.23% - 5.09%, 4%, and 10%, respectively, from 2018 to 2022. Certainly, it is critical to control the federal deficits down below $543billion while slowing down the rise of interest rate.

In the meantime, the adoption of the territorial taxation system will clearly reduce the corporate tax revenue but it will also attract companies' overseas profits back to the U.S. territory. Many people believe that shareholders will benefit directly because stock dividends will grow. Actually, people's consumption power will also grow which will then stimulate more corporate investments and use up those overseas earnings. Therefore, the above-stated projections may very likely be underestimated if federal spending, interest rates, and global economy are not creating unpleasant obstacles.

Acknowledgement
Helpful guidelines and comments from Dr. Robert Gottfried Kuklik are highly appreciated.

Sources

1. AHERN, W. Comparing the Kennedy, Reagan, and Bush tax cuts. 2004. Available at https://taxfoundation.org/comparing-kennedy-reagan-and-bush-tax-cuts/
2. AMADEO, K. The history of recessions in the United States. 2017a. Available at https://www.thebalance.com/the-history-of-recessions-in-the-united-states-3306011.
3. AMADEO, K. What is Reaganomics? Did it work? 2017b. Available at https://www.thebalance.com/reaganomics-did-it-work-would-it-today-3305569
4. AMADEO, K. Unemployment rate by year since 1929 compared to inflation and GDP. 2017c. Available at https://www.thebalance.com/unemployment-rate-by-year-3305506
5. AMADEO, K. Trump's tax plan and how it would affect you. 2017d. Available at https://www.thebalance.com/trump-s-tax-plan-how-it-affects-you-4113968
6. ATKINS, C. President's panel should avoid redistribution of 1986. 2005. Available at https://taxfoundation.org/tax-reform-and-revenue-neutrality-presidents-panel-should-avoid-redistribution-1986/
7. BEA (Bureau of Economic Analysis). National data: GDP & personal income. 2017. Available at https://www.bea.gov/iTable/index_nipa.cfm
8. BRADFORD TAX INSTITUTE. History of federal income tax rates: 1913 – 2017. 2017. Available at https://bradfordtaxinstitute.com/Free_Resources/Federal-Income-Tax-Rates.aspx
9. BRYAN, B. The White House is making a big claim about how Trump's tax plan would boost the US economy. 2017. Available at http://www.businessinsider.com/trump-tax-plan-gdp-effect-corporate-rate-2017-10
10. CAPLIN, M. M. Reflections on the Revenue Act of 1964. University of Pennsylvania Law Review, 1964, 112, 857-863.
11. CHAHROUR, R., SCHMITT-GROHE, S. URIBE, M. A model-based evaluation of the debate on the size of the tax multiplier. American Economic Journal: Economic Policy 2012, 4(2): 28-45.
12. CLOYNE, J. Discretionary Tax Changes and the Macroeconomy: New Narrative Evidence from the United Kingdom. American Economic Review, 2013, 103 (4): 1507-1528.
13. DUBAY, C. The Bust tax cuts explained: Where are they now? 2013.Available at http://www.heritage.org/taxes/report/the-bush-tax-cuts-explained-where-are-they-now
14. GREENBERG, S. Looking back at the Bush tax cuts, fifteen years later. 2016.Available at https://taxfoundation.org/looking-back-bush-tax-cuts-fifteen-years-later/
15. FAZZARI, S. M., MORLEY, J., PANOVSKA, I. B. When do discretionary changes in government spending or taxes have larger effects? UNSW Business School Research Paper 2017, No. 2017 ECON 04, 65pages.
16. FLOYD, D. Trump's tax reform plan. 2017. Available at https://www.investopedia.com/news/trumps-tax-reform-what-can-be-done/
17. FRED. FRED Economic Data. 2017. Available at https://fred.stlouisfed.org/
18. HISTORY.COM. Boston Tea Party. 2009. Available at http://www.history.com/topics/american-revolution/boston-tea-party

19. JOINT COMMITTEE ON TAXATION. Estimated revenue effects of the "Tax Cuts And Jobs Act." 2017a. Available at https://www.jct.gov/publications.html?func=startdown&id=5043
20. JOINT COMMITTEE ON TAXATION. Estimated revenue effects of modifications to the "Tax Cuts And Jobs Act." 2017b. Available at https://www.jct.gov/publications.html?func=startdown&id=5046
21. KENSMIND. Presidents and economy: Harding, Coolidge and tax cuts. 2014. Available at https://potus-geeks.livejournal.com/486375.html
22. LAFFER, A. B. The Laffer curve: past, present, and future. Backgrounder, 2004, No. 1765, p. 1-16. Available at http://www.heritage.org/taxes/report/the-laffer-curve-past-present-and-future.
23. Lee, Y-C. Implication of Trump's tax reform to the financial management of the U.S.-based multinational enterprises (MNEs). CER - International Scientific Conference for PhD students of EU countries. 2017. Available at http://www.sciemcee.org/library/proceedings/cer/cer2017_proceedings02.pdf
24. LIZARAZO, S., PERALTA-ALVA, A., PUY, D. Macroeconomic and distributional effects of personal income tax reforms: A heterogeneous agent model approach for the U.S. IMF Working Paper 2017. WP/17/192, 32 pages.
25. MERTENS, K., RAVN, M. O. Empirical Evidence on the Aggregate Effects of Anticipated and Unanticipated US Tax Policy Shocks. American Economic Journal: Economic Policy 2012, 4(2): 145‑181.
26. MERTENS, K., RAVN M. O. The dynamic effects of personal and corporate income tax changes in the United States. American Economic Review 2013, 103(4): 1212-1247.
27. PEROTTI, R. In search of the transmission mechanism of fiscal policy. NBER Macroeconomics Annual 2007, 22: 169-249.
28. ROMER, C., ROMER, D. H. The macroeconomic effects of tax changes: Estimates based on a new measure of fiscal shocks, American Economic Review, 2010, 100, 763-801.
29. TAX POLICY CENTER. Historical highest marginal income tax rates. 2017a.Available at http://www.taxpolicycenter.org/statistics/historical-highest-marginal-income-tax-rates
30. TAX POLICY CENTER. Source of revenue as share of GDP. 2017b. Available at http://www.taxpolicycenter.org/statistics/source-revenue-share-gdp
31. TAX POLICY CENTER. Corporate top tax rate and bracket. 2017c. Available at http://www.taxpolicycenter.org/statistics/corporate-top-tax-rate-and-bracket
32. WHITE HOUSE. Budget of the U.S. Government. Fiscal year 2018. 2017. Available at https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf.
33. YANG, S.-C. S. A chronology of postwar U.S. federal income tax policy. CAEPR Working Paper, 2007-21. Available at https://scholarworks.iu.edu/dspace/handle/2022/2687

Contact

Ms. Yen-Chih Lee, MBA, MS
LIGS University
810 Richards Street, suite 836
Honolulu, Hawaii 96813, U.S.A.
Tel: +1 (808) 381-5091
email: yenchihlee@gmail.com

EKONOMICKÉ ASPEKTY ZÁKONA č. 95/2017 Z.z.

ECONOMIC ASPECTS OF LAW NO. 95/2017

Natália Kováčová

Abstrakt

Príspevok sa orientuje na veľmi aktuálnu a celospoločensky atraktívnu problematiku relevancie zákazu práce v maloobchode počas štátnych sviatkov stanovenú zákonom č. 95/2017 Z.z. Máme za to, že predmetná legislatívna úprava vyvolala v slovenskej spoločnosti značnú diskusiu, ktorá si vyžaduje patričnú pozornosť. Ambíciou príspevku je poukázať na ekonomické dôsledky novely Zákonníka práce 95/2017 Z.Z. o zákaze predaja v maloobchode počas štátnych sviatkov môžu mať viacero konsekvencií a uhlov pohľadu.

Kľúčové slová: maloobchod, sloboda podnikania, štátny sviatok, veľkoobchod, Zákonník práce

Abstract

The article focuses on the very current and socio-attractive issue of the relevance of the prohibition of work in the retail trade during the public holidays stipulated by Act no. 95/2017 We consider that the legislative amendment in question has caused considerable discussion in Slovak society, which requires proper attention. The ambition of the contribution is to point out the economic consequences of the amendment to Labor Code 95/2017 prohibiting retail sales during public holidays may have multiple consequences and angles.

Key words: *retail, freedom of buisness, public holiday, wholesale, Labour code ,*

1. ANALÝZA EKONOMICKÝCH DOPADOV ZÁKONA Č.95/ 2017 Z.z.

Možné ekonomické a sociálne dôsledky novely Zákonníka práce zákonom 95/2017 Z.z. o zákaze predaja v maloobchode počas štátnych sviatkov môžu mať viacero konsekvencií a uhlov pohľadu. V súčasnosti, po uplynutí necelého pol roka od vstupu zákona do platnosti je veľmi náročné zhodnotiť reálne dopady tejto novelizácie na ekonomiku, hospodárstvo či HDP Slovenskej republiky. Avšak konkrétny legislatívny proces bol postavený na istých štúdiách Ministerstva financií Slovenskej republiky a snažil sa tak čo možno najvernejšie predikovať možné zmeny a pohyby na finančnom trhu. Pokiaľ sa pozrieme na historicky staršie štúdie Inštitútu finančnej politiky zaoberajúce sa možným rušením dvoch štátnych sviatkov počas roka, zistíme značne kontroverzné fakty. V prvom rade, ak predpokladáme, že výkonnosť ekonomiky počas sviatku je niečo na hranici 300 miliónov eur na deň, potom by sviatočný deň predstavoval čistú stratu tejto sumy. Ak ale zohľadníme fakt, že aj počas sviatkov prevádzky s nepretržitým režimom bežia a jedná sa zväčša o silné a veľké výrobné závody, táto suma nám začne dramaticky klesať na polovicu. Pokiaľ k tomu pripočítame ešte sektor služieb, ktorý je otvorený v niektorých prípadoch upravených v zákone nepretržite opäť, musíme nejaké percento zoškrtať. Prichádzame k sume 100 miliónov eur, o ktoré by reálne za deň mohla štátna pokladnica prísť. Avšak ani toto nie je zďaleka koncové číslo. Dominantná časť celkového denného obratu sa viaže na trh, ktorý určuje dopyt a ponuku. Zamestnávateľ a zároveň výrobca mu prispôsobuje svoje kapacity a produkciu, ktorá buď klesá alebo narastá, preto ho štátny sviatok nemôže rozhodiť, pokiaľ je vopred známy a dokáže si naň naplánovať robotu. V neposlednom rade takto nastavená prevádzka nemá problém istý počet štátnych sviatkov v roku vykryť a jej úspešnosť alebo neúspešnosť zďaleka nestojí na počte a intenzite

predaja počas štátnych sviatkov. Zaujímavým je aj pohľad ekonomického analytika Tatra banky B. Fojtíka: *„Z perspektívy podnikateľov na Slovensku, ale aj tých, čo príchod iba zvažujú, to zrejme nie je najpriaznivejšia správa z nákladového pohľadu. Na druhej strane si však nemyslím, že by to pri rozhodovaní investora o príchode na Slovensko malo byť k. o. kritérium, ktoré by našu krajinu úplne vylúčilo z hry. Máme síce viac voľných pracovných dní, na druhej strane nemáme až tak veľa dovolenkových dní,"* (Buchláková, L. in pravda.sk, 2016) Za úvahu stojí aj myšlienka reálneho pripadnutia štátnych sviatkov na pracovné dni, samozrejme ich počet 15 to nezníži ale pokiaľ len 2 či 3 štátne sviatky vychádzajú na kalendárny rok počas víkendu výrazne to znižuje ich priamy dopad na ekonomiku krajiny.
Pre lepšie pochopenie a vykreslenie ekonomických vplyvov štátnych sviatkov poukazujeme na výpovede viacerých odborníkov na ekonomiku, financie a bankovníctvo: Riaditeľ nadácie F.A. Hayeka - M. Pošvanc sa na margo predmetného zákona vyjadril pozitívne a víta takýto typ politických opatrení, avšak upozorňuje na krehké zbieranie si volebných bodov takýmto spôsobom. Ich dopad môže byť dvojaký: To prvé hľadisko pocítia predavači a zamestnanci v maloobchode takmer okamžite a najmä v mesiacoch s väčším výskytom štátnych sviatkov ako sú september, november, december či veľkonočné obdobie. Ich platy teda logicky klesnú nielen o dni strávené doma, ale aj o miestami štedrý systém benefitov a príplatkov práce počas štátnych sviatkov, prípadne v kumulácii s nočnou prácou. Druhé hľadisko vytvára priestor pre zamyslenie sa väčších obchodných domov a centier, ktoré už dnes pilotne zavádzajú samoobslužné platobné terminály, ktoré by v budúcnosti mohli nahradiť zamestnancov v pokladniach a zákon v takejto podobe by absolútne stratil význam. (Buchláková, L. in pravda.sk, 2016) Ako populistické riešenie vzniknutej situácie to vníma aj J. Jursa, analytik spoločnosti Capital Markets. Umožniť zamestnancom tráviť viac voľného času v kruhu rodiny je určite pozitívne, otázkou však zostáva, či je toto pozitívum dostatočne silné aby vyvážilo možné negatíva, prípadne pokles tržieb v menších maloobchodných prevádzkach. Negatívom tak môže byť postupné prepúšťanie zamestnancov, ktorí sa jednoducho stanú nadbytočnými v zmysle klesajúcich tržieb svojich zamestnávateľov. Investičný poradca R. Koza sa na daný stav pozrel z hľadiska reálnej sily súčasnej ekonomiky, ktorá je dnes vo veľmi dobrej kondícii. Tento stav tak predznamenáva, že zavedenie zákona aj tohto rozsahu by nemalo výraznejšie vyvolať turbulencie na ekonomickej či hospodárskej platforme. Opak by však mohol nastať v prípade poklesu priaznivých vyhliadok ekonomiky a jej rastu do budúcna. Analytik X–Trade Brokers K. Boros k tejto problematike pristúpil kvantitatívne. V súčasnosti v podstate neexistuje nijaká ucelená štúdia, ktorá by dokázala porovnať všetky negatíva a možné benefity takéhoto kroku. Jediná svojho druhu je z dielne londýnskeho Centra pre ekonomickú výkonnosť a skúmala špecifikum otváracích hodín v maloobchodných prevádzkach počas nedelí. Jej výsledkom sú tri základné zistenia, ktoré po zverejnení prvých správ a informácii od obchodníkov môžeme pozorovať aj v podmienkach na Slovensku. Po prvé, reálne ohrozenie zamestnanosti v maloobchode, po druhé pokles tržieb v maloobchodných prevádzkach menšieho rozsahu a veľkosti a po tretie, zníženie počtu firiem pôsobiacich v maloobchode. (Buchláková, L. in pravda.sk, 2016)

1.1 Pozitíva a negatíva aplikácie zákona

Ostrú argumentáciu zvolil Stanislav Pánis, analytik J&T Banky: "*Ide o bezprecedentný negatívny zásah do podstaty trhovej ekonomiky a o ďalšie obmedzenie slobody a zhoršenie podnikateľského prostredia ako aj komfortu bežného spotrebiteľa, ktorý si nebude môcť počas voľných dní pohodlne nakúpiť. Som silne presvedčený, že vláda by nemala diktovať obchodu, kedy môžu mať otvorené a kedy musia byť zatvorené. Aj politický populistický argument o tom, aby mohli byť rodiny spolu, je pokrytecký. V prípade pracovníkov v službách to už neplatí? Čašníčky reštauráciách či recepčné v hoteloch už asi nemusia byť s rodinami. Rovnako ako pumpári. Alebo keď to zoberieme do extrémov, tak potom by malo byť zakázané*

napríklad aj vysielanie televízií, lebo aj moderátori a celé osadenstvo televízií by malo byť doma z rodinou.“ (Duchaj, 2017, in Hnonline. Sk, 2017) Posledná argumentácia pochádza od R. Ižipa, ktorý pôsobí ako hlavný analytik Trim Broker. Uvedomuje si, že každá zmena a teda aj spomínaná novelizácia má vždy svojich víťazov a porazených. Štát sa snaží počas štátnych sviatkov garantovať pracovný pokoj, ale jeho rovnoprávne a celoplošné zavedenie vo všetkých odvetviach a sférach hospodárstva je v dnešnej globálnej a konkurenčnej spoločnosti nereálne. Takže v konečnom dôsledku takéto rozhodnutie pôsobí skôr diskriminačne voči ostatným zamestnancom, ktorí či chcú alebo nechcú pracovať počas štátnych sviatkov, musia. Na strane druhej, každá sociálna výhoda a benefit, aj keď je priamo organizovaný štátom niečo stojí. Tu je na mieste otázka či Slovensko a slovenský zamestnanec je dostatočne bohatý na to aby mohol požívať aj takýto typ zvýšeného sociálneho luxusu. Komu teda škodia zatvorené maloobchodné prevádzky počas štátnych sviatkov? Podľa dostupných informácií zatiaľ najviac tým najmenším a najslabším článkom reťazca – malým obchodom. Veľké obchodné, nadnárodné reťazce sa v zásade nesťažujú. V rámci porovnávania tržieb z uplynulých rokov zistili isté posuny pred a po sviatočných dňoch, ale k prepadu tržieb v dramatických hodnotách nedochádzalo. Zákazníci si rozdelili nákup na deň pred sviatkom alebo deň nasledujúci po ňom a zvýšili tak objemy svojich nákupov. To sa pozitívne premietlo v tržbách viacerých reťazcov na Slovensku. Beztak niektoré z nich uvažujúce empaticky, sociálne a pre svojich zamestnancov už v minulosti dobrovoľne zatvárali počas sviatkov svoje brány aj keď im to žiadny zákon nenariaďoval. Negatívny dopad môže mať ale spomínaný zákon na tých menších, ktorí stoja síce na konci pomyselného reťazca a pritom často ide o sídliskové potraviny, večierky a malé prevádzky poskytujúce len tie základné potraviny, cigarety alkohol a nealkoholické nápoje. Od ich predstaviteľov prichádzajú správy o medzimesačnom dvojcifernom poklese tržieb. Samozrejme, dopad na to má viacero okolností. Pokiaľ štátny sviatok vychádza na stred týždňa, zákazníci prichádzajú do prevádzok deň pred aj po sviatku. V prípade tohtoročných septembrových sviatkov však vznikli predĺžené víkendy, ktoré lákali ľudí viac do prírody a za cestovaním či turistikou. Rovnako tak strácali aj malí podnikatelia v oblasti obuvi, odevov a doplnkov, ktorí pocítili vytratenie sa zákazníka z miest v ktorých sa bežne počas víkendov vyskytovali. (Kovarovič, 2016) / (Goliáš, Zachar,. 2011) Špecifické postavenie v tomto procese majú kníhkupectvá, to najväčšie, Martinus, odhaduje pokles tržieb spôsobený štátnymi sviatkami v mesiaci september približne na 1%. Táto hodnota sa môže ešte navýšiť 17. novembrom, ktorý už tradične otvára sezónu predvianočných nákupov ako voľný deň. Kníhkupectvá sú špecifickým typom maloobchodu, ktorý je v prevažnej miere atraktívnejší práve počas štátnych sviatkov, dní pracovného pokoja a víkendov, kedy si zákazníci dokážu nájsť viac času pre ich navštívenie. Z dlhodobého hľadiska im tak zákaz predaja počas sviatkov nevadí, oveľa horšie by bolo zatvorenie obchodov počas nedelí, čo by mohlo dramaticky ovplyvniť ich mesačné tržby. Ďalším možným negatívom platnej novely zákona je jej nezohľadňovanie v prípade nájomných zmlúv. Ak si zoberieme príklad obchodného centra, ktoré disponuje 100 prevádzkami, z nich 70 spĺňa kritérium maloobchodnej prevádzky a majiteľ ju musí počas sviatku zatvoriť, pokiaľ si v nej nechce predávať sám. Napriek tomu nájomné spolu s podielom nákladov na upratovanie spoločných priestorov obchodného centra, fungujúcou ventiláciou, klimatizáciou a kúrením hradí ako v akýkoľvek iný pracovný deň. Rovnako tak musí hradiť paušálne aj časť za strážnu službu v celom objekte a podieľať sa na spoločných nákladoch na osvetlenie a servis parkovacích plôch. Inak povedané, počas týchto 15 dní v roku, kedy musí mať prevádzku zatvorenú, nedisponuje žiadnou úľavou. Finálne mu tak vzniká strata minimálne vo výške polovice mesačného nájmu, ktorý za zatvorenú prevádzku zaplatil. Istá miera diskriminácie spolu s posunutím váhy konkurenčného boja v prospech prevádzok poskytujúcich služby ako občerstvenie, kaviarne, reštaurácie, kiná a iné, tu samozrejme viditeľná je. Tieto prevádzky ale neznášajú zvýšené náklady na správu objektu v

ktorom vykonávajú počas sviatku svoju podnikateľskú činnosť, ale prispievajú rovnakým dielom ako bežné dni. Nehovoriac o tom, že ich zamestnanci nie sú ukrátení o finančné benefity a príplatky. (Goliáš, Zachar, 2011) Kúpna sila sa počas sviatkov nestratila, len sa presunula, uviedol pre agentúru SITA poslanec strany Smer-SD J. Podmanický. Ten tvrdí, že „*vďaka novele sa výrazne posilnil cestovný ruch. Zo strany podnikateľov v turizme prichádzajú informácie o enormnom náraste návštevníkov počas dní, keď sú zatvorené obchody. Kúpna sila sa presunula do zariadení cestovného ruchu, do reštaurácií, múzeí, skanzenov, do horskej turistiky,"*(Legéň, in Trend.sk, 2017) Aj podľa ďalších prieskumov došlo k miernemu nárastu zákazníkov v hoteloch, reštauráciách a na rôznych turistických atrakciách. Znamená to, že ľudia viac cestujú za zážitkami a zarobené prostriedky míňajú v národnom, prípadne regionálnom hospodárstve. Medziročný nárast v odvetví turizmu v mesiaci september sa odhaduje medzi 5 – 7%, čo predstavuje pre Slovensko veľmi slušné čísla. Aplikácia novely zákona 301/2001 Z.z. je na Slovensku prvým odvážnym krokom ako limitovať predaj v maloobchode a dopriať zamestnancom viac voľného času a odpočinku v kruhu rodiny. Toto sociálne riešenie by mohlo predikovať aj nasledujúce kroky priblíženiu sa tzv. nemeckému modelu obmedzovania predaja počas nedieľ. V podmienkach Slovenskej republiky by to ale znamenalo už veľmi radikálny zásah do slobody podnikania a reálne ohrozilo existenciu a konkurencieschopnosť tých najmenších podnikov a prevádzok. Podľa K. Fašiangovej nie je spoločnosť ešte pripravená na absolútny zákaz predaja v nedeľu. Argumentuje, že Slováci dnes pracujú oveľa viac ako v minulosti, aby mali lepšie príjmy. Neraz trávia v robote viac než osem hodín, nechodia domov o štvrtej popoludní a často majú dve zamestnania. Potom im na pokojné nákupy nezostáva veľa času. (Legéň, in Trend.sk, 2017) Všetko by však záležalo na tom ako by sa daný zákaz legislatívne nastavil a upravil. Limitácia prevádzok na základe výmery predajnej plochy, ktorú skúšali v Maďarsku sa neukázala ako šťastné riešenie. Hranica 200 m2 mala za cieľ oslabiť pozíciu veľkých obchodných zahraničných reťazcov, avšak nedokázala v dlhodobom meradle uspieť. Z ekonomického hľadiska musíme zohľadniť aj kvantitatívny rozmer takéhoto rozhodnutia, ktoré by navýšilo počet dní kedy by výrazne poklesli tržby a teda aj výkonnosť HDP štátu na hodnotu 67/68 vrátane sviatkov, čo je na dnešnú dobu veľmi odvážne číslo. (Krajanová, 2017) Na základe doteraz zisteného a naštudovaného z dostupných materiálov, analýz príslušných rezortných ministerstiev môžeme tvrdiť nasledovné:

Predpokladané pozitíva aplikácie zákona 95/2017 Z.z. v praxi

- zamestnanci v maloobchodných prevádzkach získali viac dní voľna
- obchodníci majú v istej miere nižšie náklady na mzdu, benefity a príplatky
- navýšenie návštevnosti zariadení cestovného ruchu, nárast turizmu, wellness pobytov a využívania širokej škály dostupných služieb

Predpokladané negatíva vyššie uvedeného zákona:

- citeľné výpady tržieb a obratu najmä v maloobchodných prevádzkach menších rozmerov s nižším počtom zamestnancov a užším sortimentov tovaru rádovo do 10%
- zamestnanci prišli o možnosť privyrobiť si o štedré príplatky minimálne do výšky 50% z ich priemerného platu,
- koniec práce študentov a brigádnikov počas sviatkov v tomto type prevádzok, ktorí voľné dni mohli využiť na privyrobenie si
- diskriminačné riešenia v nerovnomernom zákaze predaja pre niektoré druhy maloobchodného predaja,
- možné narastanie cezhraničnej nákupnej turistiky a vývozu prostriedkov z národného hospodárstva do zahraničia

- riziko obchádzania zákona v podobe automatizácie výdaja a predaja istých druhov sortimentu v maloobchode –nahradenie ľudskej práce. (Glasová, 2016)

1.2 Dopad Zákonníka práce

Dopad prijatej novelizácie Zákonníka práce sa dotýka viac než 300-tisícovej skupiny zamestnancov pracujúcich v maloobchodných alebo veľkoobchodných prevádzkach. Toto číslo tak predstavuje približne rovnaký počet slovenských rodín, ktoré (za predpokladu voľna pre oboch rodičov) môžu tráviť sviatočný deň spoločne. Určite to nie je zanedbateľné číslo v kontexte celkovej zamestnanosti na Slovensku, ktorá v prvých dvoch kvartáloch roku 2017 atakovala hranicu 2,54 milióna aktívnych zamestnaných obyvateľov. Práve tu však chceme poukázať na isté disparity platnosti spomínaného zákona, ktoré môžu pôsobiť diskriminačne. Spomínanej skupine 300 tisícov pracovníkov v maloobchode sme poskytli benefit voľných pracovných dní. Skupine pracujúcej v ubytovacích a stravovacích službách, ktorú k 2. kvartálu roku 2017 tvorí približne 115 tisíc zamestnancov, sme však žiadny benefity ukotvené v zákone neposkytli. Aj títo pracovníci majú svoje rodiny a rovnako by chceli s nimi tráviť spoločný čas. Ešte výraznejšie zamyslenie nad logikou a funkčnosťou zákona by malo prísť v odvetví priemyslu, ktoré dnes hýbe celou ekonomikou Slovenska s počtom aktívnych pracovníkov 694 tisíc k 2. kvartálu roku 2017, s medzi kvartálnym nárastom približne 25 tisíc pracovníkov. Pre ich ochranu však samotný zákon nepôsobí, pretože poskytuje výnimku pre zamestnávateľov prevádzkujúcich nepretržitú výrobu, v ktorej väčšina z týchto občanov pracuje. Na mieste je tak otázka – keď sme poskytli benefity a pracovné voľno v rozsahu 15 dní skupine 300 tisíc zamestnancov obchodu, čo ponúkneme ako kompenzáciu zvyšným pracovníkom, ktorí len v dvoch spomínaných odvetviach spolu atakujú hranicu 900 tisíc ľudí a domácností, z ktorých väčšina si tieto sviatočné dni nemôže plnohodnotne užívať a vychutnať. (Štatistický úrad SR, 2017)

V nasledujúcej časti sa budeme venovať kvantitatívnym ukazovateľom výkonnosti slovenskej ekonomiky a hospodárstva v rokoch 2016 a 2017. Na posledných, najaktuálnejších údajoch budeme chcieť zdokumentovať možný vplyv a dopad zákazu maloobchodného predaja počas štátnych sviatkov. Prvým kritériom pre komparáciu bude reálny podiel zamestnanosti slovenského obyvateľstva, ktorý sa medziročne medzi prvým kvartálom roku 2016 zvýšil z 89,7% na hodnotu 91,3% v druhom kvartáli roku 2017. Medziročne tak došlo k poklesu nezamestnanosti a nárastu podielu zamestnaného obyvateľstva približne o 2 % body, čo hodnotíme vysoko pozitívne. Druhý kvantitatívnym ukazovateľom potencionálneho rastu sú tržby za vlastné výkony vo vnútornom obchode. Prinášajú nám pomerne exaktné posúdenie vývoja tržieb v maloobchodných a veľkoobchodných prevádzkach v mesiaci september, počas ktorého už platili dva spomínane štátne sviatky a vytvárali aj predĺžené víkendy. Uvádzame prehľad: „*Tržieb vo veľkoobchode v porovnaní so septembrom 2016 vzrástli v úhrne o 4,1 %. Vývoj ovplyvnil rast tržieb v ostatnom špecializovanom veľkoobchode o 13,3 %, veľkoobchode so zariadeniami pre IKT o 15,7 %, veľkoobchode so strojmi, zariadeniami a príslušenstvom o 8,9 %, veľkoobchode s potravinami, nápojmi a tabakom o 1,8 %. Tržby klesli predovšetkým v nešpecializovanom veľkoobchode o 3 % a vo veľkoobchode s poľnohospodárskymi surovinami a živými zvieratami o 5,3 %.V maloobchode sa tržby zvýšili o 7,4 %. Rast bol vo väčšine činností, z toho najvýznamnejší v maloobchode v nešpecializovaných predajniach o 5 % a v maloobchode mimo predajní, stánkov a trhov o 27,6 %. Pokles tržieb bol len v maloobchode s tovarom pre kultúru a rekreáciu o 2,6 % a v maloobchode v stánkoch a na trhoch o 9 %.“* (Štatistický úrad SR, 2017b) Z uvedeného vyplýva pomerne značný nárast tržieb a obratov v maloobchode vo vzťahu k minulému roku, kedy sa počas daných štátnych sviatkov predaj v maloobchode nezakazoval a zároveň nevytvárali dvakrát v jednom mesiaci predĺžené víkendy. Pokles, ktorý bol zaznamenaný, patrí výhrade sektoru poľnohospodárstva a predznačuje ukončenie tohtoročnej sezóny. Na

tento fakt sa vzťahuje aj pokles tržieb trhového predaja, ktorému tiež postupne končila sezóna. Tá dosiahla v sektore cestového ruchu a relaxu svoj vrchol ešte na konci mesiaca august, preto tieto služby prirodzene začali upadať a otvárať priestor pre iné. V prípade maloobchodného predaja v rozmedzí uplynulých 9 mesiacov roku 2017 a tých istých v roku 2016 došlo k nárastu od 6,4 do 9,7 % bodu vo vybraných oblastiach podnikania v maloobchode. Celý sektor pritom dosiahol medziročné zvýšenie o hodnotu viac než 5,7%, napriek avizovanej a už aj uplatňovanej zmene a zatváraní maloobchodných prevádzok. (Štatistický úrad SR, 2017) Zaujímavým je aj možný dopad štátnych sviatkov na cestovný ruch a turizmus. V medziročnom porovnaní štatistických údajov nachádzame veľmi priaznivé hodnoty. Medziročný nárast dlhodobých a krátkodobých ciest na území Slovenskej republiky vzrástol zo 4,7 milióna v roku 2015 na 5,8 milióna v roku 2016 a dnes by mal prekračovať hranicu 6 miliónov ciest. Rovnako tak stúpol aj počet prenocovaní, kým zákazníci v roku 2015 prenocovali len 18 miliónov krát, v roku 2016 to už bolo 21 miliónov a tento trend má stúpajúcu tendenciu aj v roku 2017. Počet návštevníkov v medzimesačnom porovnaní mesiaca august 2016 a august 2017 zaznamenal nárast o 5,8 %, rovnako tak aj s nárastom zahraničných návštevníkov na úrovni 6,5 %. Miera vyťaženosti ubytovacích zariadení nám poukazuje na zvyšujúci sa záujem o naše hlavné mesto, ktoré dlhodobo vedie v tabuľkách návštevnosti a prenocovaní klientov. Ekonomický nárast regiónu Vysokých tatier a Liptova je však za posledné roky značný, o čom svedčia aj zvyšujúce sa čísla atakujúce Bratislavský kraj a predbiehajú všetky ostatné krajské mesta a ich spádové oblasti. Je zrejmé, že slovenský turista zvýšil podiel stráveného času v svojej rodnej krajine nielen v letných, ale aj zimných mesiacoch. Samozrejme, z medzinárodného hľadiska nemôžeme tento jav pripísať len štátnym sviatkom ale aj značným turbulenciám v klasických zahraničných dovolenkových destináciách, nárastu medzinárodného terorizmu a destabilizácií istých geopolitických regiónov sveta. V prípade Trnavského kraja sme získali rovnako zaujímavé informácie, ktoré sme sa rozhodli aplikovať na našu výskumnú problematiku. Medziročný nárast hospodárstva a ekonomiky kraja je značný a svedčia o tom aj veľmi priaznivé údaje. V prípade medziročného porovnávania maloobchodných a veľkoobchodných prevádzok pôsobiacich na jeho území došlo medzi rokmi 2015 -2016- 2017 k nárastu o 13 až 23%. Kým v roku 2015 sme evidovali len 3590 takýchto prevádzok už v roku 2016 ich na našom území pôsobilo 4489 a v roku 2017 presiahli počet 5000. (Štatistický úrad SR, 2017) Na základe uvedeného vyvodzujeme tvrdenie, že malým a stredným podnikateľom a maloobchodnému predaju sa na území Trnavského kraja darí veľmi dobre. Toto tvrdenie môžeme podložiť aj ďalším štatistickým údajom o výške miezd a náhrad za mzdy v sektore maloobchodu a veľkoobchodu, ktorá medziročné narastá o 1,7 až 2,5 % bodu. Dnes dosahuje len v prípade Trnavského kraja hodnotu 159 miliónov eur. Výška priemernej mesačnej mzdy v prípade mužov prekračuje sumu 952 eur a v prípade žien 740 eur brutto. Pomerne výrazná miera mzdových disparít v prípade pohlavia, je žiaľ, dlhoročným trendom na území Slovenskej republiky, kde väčšina zamestnancov v maloobchode na pozíciách priameho predaja pozostáva zo žien, kým v manažmente a riadiacich funkciách týchto spoločností vídame dlhodobo mužské zastúpenie. Posledným štatistickým údajom, ktorý potvrdzuje len minimálny dopad zákona 95/2017 Z.z. je maloobchodný predaj okrem motorových vozidiel za uplynulých 9 mesiacov roka 2017. Referenčná hodnota 100% bodov je viazaná na indexy rovnaké ako obdobie predošlého roka. Maloobchod okrem motorových vozidiel dosiahol v roku 2017 rast zo 101,3 % bodu na hranicu 107,4 % bodu v mesiaci september. V prípade maloobchodného predaja potravín, nápojov a tabakových výrobkov došlo opäť k nárastu spotreby. Pre porovnanie sme zvolili referenčné mesiace od dátumu platnosti zákona č.95/2017 po koniec septembra 2017 s ekvivalentným obdobím roku 2016. Tu je viditeľný nárast spotreby z hodnoty 104.1% až k hodnotám 111.2%. Pokles tržieb teda nenastal a zaznamenal rast, ktorý je predpokladaný aj naďalej do konca roku 2017. (Štatistický úrad SR,

2017) Pre analýzu konkrétnych sviatočných dní a ich aktuálneho dopadu na ekonomiku však musíme zohľadniť iné merateľné faktory. Nákupná turistika tu bola aj pred zavedením kontroverzného zákona, avšak nedosahovala až takých rozmerov ako dnes počas štátnych sviatkov. Za uplynulé štyri sviatky: Sviatok svätého Cyrila a Metoda, Výročie SNP, Deň Ústavy SR a Sedembolestná Panna Mária Slováci v značnej miere využívali nákupy v zahraničí, čo sa týkalo najmä prihraničných regiónov a na nákupy tak cestovali do Rakúska, Česka, Poľska, Maďarska či na Ukrajinu. Podľa analýzy NBS došlo k viac než 80% poklesu platieb platobnými kartami na území Slovenska a k nárastu o viac než 33% realizovaných platieb v zahraničí. Reálne čísla a rozsah tržieb, ktoré jednoducho odišli do zahraničia nepoznáme, domnievame sa však, že nešlo o zanedbateľné hodnoty. Pracujúci Slováci žijúci v prihraničných oblastiach vyjadrili pomerne značnú nespokojnosť s novým zákonom, ktorý im značne skomplikoval plány, najmä pred začiatkom školského roka a tak pristúpili k nákupnej turistike. Nákupy počas dní štátnych sviatkov nie sú pritom ničím novým a u nás boli využívane pomerne často ako časová kompenzácia mimo víkendu. Zavedením novelizácie zákona do praxe sa tak tento záujem presunul za hranice, kde samozrejme zákazník spozná nové druhy tovarov a služieb a zvyšuje sa tak šanca jeho opätovného návratu aj v iné dni. Zároveň v prípade istého druhu tovaru a sortimentu nám obchody u susedov môžu konkurovať aj cenou a podliezť tie naše. Miera rizika odlivu domáceho finančného kapitálu do zahraničia tak podľa dostupných údajov NBS a ČSOB narastá a podobný trend je očakávaný aj počas ostatných sviatkov. (Slováci sa počas...intvnoviny.sk, 2017) Ekonomické verzus sociálne – aj tak by sa dala nazvať dilema medzi vnímaním štátnych sviatkov, ich významu a dôležitosti v súčasnom svete. Bohužiaľ, stále viac narastá ekonomický význam sviatkov v podobe voľných pracovných dní, či v opačnom prípade možnosti privyrobiť si za zvýhodnenú mzdu. Stále viac sa ale vytráca ich sociálny, kultúrny a tradičný etnologický aspekt. Práve preto je nevyhnutné postaviť proti sebe ekonomické a sociálne hľadisko a význam sviatkov. Rozhodnutie vlády R. Fica v roku 2017 o zákaze práce v maloobchodných prevádzkach počas všetkých štátnych sviatkov a dňoch pracovného pokoja bolo v prevažnej miere sociálnym rozhodnutím, výsledkom ktorého by mal byť práve nárast duchovnej hodnoty štátnych sviatkov v našom prostredí. Problematika sviatkov však v podmienkach Slovenskej republiky nie je novou už roky je koncepčne a empiricky študovaná a vychádza z chápania sviatkov ako rituálu či istého symbolického konania, ktoré sa viaže na istú skupinu ľudí – rituálnu komunitu. Väčšinou je postavená na zdieľaných významoch a hodnotách. Ako uvádza K. Popelková: *„tieto rituály ako strategické sociálne praktiky, spôsoby správania sa a konania v dôležitých momentoch individuálneho a spoločenského života sú sledované ako médiá, ktoré v kultúre komunikujú dôležité správy. Ako sviatok sa chápe príležitosť na slávenie či pripomínanie udalosti, ktorá sa spravidla cyklicky opakuje a viaže na určitý dátum. Jednotlivec alebo spoločenstvo tejto príležitosti pripisujú mimoriadny význam a príležitosť sa spája, resp. vyvoláva nekaždodenné, avšak v istom zmysle normatívne konanie ľudí.“* (Popelková, 2014, s. 8) Sviatky tak zo sociologického hľadiska plnia viacero významných funkcií, akými sú: regeneračná, spoločensko-zábavná, integračná, komunikačná, ekonomická, identifikačná a mnohé iné. Práve tá integračná si zaslúži viac našej pozornosti, nakoľko zobrazuje snahu sviatkov neustále pripomínať občanom štátu významné počiny z minulosti a vzbudzovať a podporovať tak u nich pocit hrdosti, národného cítenia a patriotizmu, ktorý je sebe vlastným aj v iných štátoch sveta. Bez historickej pamäti a priameho vzťahu na tradície a hodnoty daného národa by jeho občania neboli úplnými a nedokázali by sa v dostatočnej miere identifikovať s daným národnom a kultúrou. Samozrejme, aj tu je nevyhnutné aby existovala istá racionálna hranica toho čo je ešte národné a nacionalistické a čo je už extrémistické. Avšak za úvahu by určite stála myšlienka, či klesajúci záujem o štátne sviatky a hlavne o ich historický a spoločenský odkaz u mladých generácií, nemá za následok narastanie vlny prílišného nacionalizmu a extrémizmu, ktorej

sme boli v uplynulých rokoch svedkami. Práve tu je citeľný rozdiel medzi občanmi, ktorí majú historickú skúsenosť a pamäť na udalosti dávno minulé v časoch ako druhej svetovej vojny, tak aj počas obdobia socializmu na území Slovenskej republiky a mladými porevolučnými generáciami, ktorých historická pamäť je limitovaná len na hodiny dejepisu, prípadne dostupné internetové zdroje a stále populárnejšiu propagandu.
Miera stotožnenia sa mladých ľudí s niektorými sviatkami na Slovensku je pomerne nízka a je veľmi náročné zvýšiť povedomie a záujem o tieto dni. Krok limitovať predaj v maloobchode môže priniesť viac času pre rodiny a viac priestoru pre spoločnú diskusiu a spoznávanie tradícií, tak ako na to poukazujú aj nami vyššie uvedené štatistiky. Tu je však nevyhnutné aby bol tento čas využitý racionálne a do istej miery zaň ponúknutý benefit zo strany štátu aby priniesol späť zdravý nacionalizmus, národnú hrdosť a seba identifikáciu. (Hrnko, 2012)

Použitá literatúra

1. 1.BUCHLÁKOVÁ, L. 2016., Sviatok cez víkend. Meniť sa to nebude, 2016. in pravda.sk, [online] [cit.21.10.2017]Dostupné na internete: https://spravy.pravda.sk/ekonomika/clanok/ 392325-sviatok-cez-vikend-menit-sa-to-nebude/
2. DUCHAJ, R. 2017, Zatvorenie obchodov nepomôže nikomu. Prečo voľno nemajú elektrikári či čašníčky? , in Hospodárske noviny, In HNonline, [online] [cit.10.11.2017] Dostupné na internete:<http://finweb.hnonline.sk/ekonomika/935965-zatvorenie-obchodov-nepomozenikomu-preco-volno-nemaju-elektrikari-ci-casnicky>
3. GOLIÁŠ, J., ZACHAR, Š. 2011. Sociálnosť trhu práce, Bratislava.. [online] 19s [cit.8.11.2017] Dostupné na internete: http://www.ineko.sk/file_download/633
4. HRNKO, A. 2012,. Štátne sviatky v Slovenskej republiky, Blog Antona Hrnka, , in hrnko.sk, 2012. [online] [cit.26.11.2017] Dostupné na internete: < http://www.hrnko.sk/2012/05/31 /statne-sviatky-v-slovenskej-republike/>
5. KOVAROVIČ, L. 2016., Sú Slováci ochotní prestať v nedeľu nakupovať?, 2016, in retailmagazin.sk, [online] [cit.23.10.2017] Dostupné na internete: http://www.retailmagazin.sk/o-nas/obchodnik/maloobchod/639-su-slovaci-ochotni-prestatv-nedelu-nakupovat
6. KRAJANOVÁ, D. 2017. Od mája cez sviatky v obchodoch nenakúpite, zákaz predaja sa rozšíri. In dennik N.sk, [online] [cit.20.10.2017]Dostupné na internete: <https://dennikn.sk/705438/od-maja-cez-sviatky-v-obchodoch-nenakupite-zakaz-predaja-sarozsiri/>
7. LEGÉŇ, M., 2017, Komu škodia zatvorené obchody cez sviatky?, in modernyobchod.sk, 2017. [online] [cit.11.11.2017]Dostupné na internete: http://www.modernyobchod.sk/aktuality/komu-skodia-zatvorene-obchody-cez-sviatky>
8. POPELKOVÁ,K. a kol, 2014. Čo je to sviatok v 21.storočí na Slovensku?, Ústav etnológie Slovenskej akadémie vied, Bratislava, 328s. ISBN: 978-80-970975-3-0
9. Slováci sa počas sviatku vybrali na nákupy do Rakúska. Na cestách sú zápchy,. 2017. in noviny.sk, Bratislava. 2017. [online] [cit.24.11.2017]Dostupné na internete: <https://www.noviny.sk/slovensko/254089-slovaci-sa-pocas-sviatku-vybrali-na-nakupy-dorakuska-na-cestach-su-zapchy>
10. ŠTATISTICKÝ ÚRAD SLOVENSKEJ REPUBLIKY, 2017. Tržby za vlastné výkony a tovar vo vnútornom obchode v septembri 2017, in slovak.statistic.sk, [online] [cit.22.9.2017] Dostupné na internete: <https://slovak.statistics.sk/wps/portal/ext/products/information /messages/inf_sprava_detail/>
11. ŠTATISTICKÝ ÚRAD SLOVENSKEJ REPUBLIKY, 2017. Maloobchod okrem motorových vozidiel (Tržby za vlastné výkony a tovar) in slovak.statistic.sk, [online] [cit.2.11.2017] Dostupné na internete: <http://statdat.statistics.sk/cognosext/cgi-

cv.header=false&ui.backURL=%2fcognosext%2fcps4%2fportlets%2fcommon%2fclose.htm l&run.outputLocale=sk>
12. ŠTATISTICKÝ ÚRAD SLOVENSKEJ REPUBLIKY, 2017, Makroekonomické ukazovatele Trnavského kraja, in slovak.statistic.sk, [online] [cit.4.11.2017] Dostupné na internete:https://slovak.statistics.sk/wps/portal/ext/themes/regional/trnavskykraj/indicators/!u t/p/z1/rVVdc6IwFP01fcRcSCDwCLQGKlr5V

Kontaktné údaje

PhDr. Natália Kováčová, PhD.
Vysoká škola Danubius
Fakulta verejnej politiky a verejnej správy
Richterova 1171
925 21 Sládkovičovo
Email.: natalia.kovacova@vsdanubius.sk

PRAWNE MECHANIZMY PRZECIWDZIAŁANIA STOSOWANIU SAMOZATRUDNIENIA W WARUNKACH CHARAKTERYSTYCZNYCH DLA STOSUNKU PRACY

LEGAL MECHANISMS FOR COUNTERACTING THE USE OF SELF-EMPLOYMENT IN TERMS SPECIFIC TO THE EMPLOYMENT RELATIONSHIP

Tomasz Duraj

Abstract

Zjawisko samozatrudnienia w Polsce (także w Unii Europejskiej) znane jest od wielu lat jako przejaw indywidualnej przedsiębiorczości nakierowanej na działalność gospodarczą zapewniającą jednostce źródło dochodu. W praktyce jednak bardzo często wykorzystuje się samozatrudnienie w warunkach charakterystycznych dla stosunku pracy, aby ograniczyć koszty pracy oraz uelastycznić politykę zatrudnienia. Tego rodzaju praktyki są niezgodne z przepisami prawa, w szczególności zaś z art. 22 polskiego KP, który zakazuje w takich przypadkach stosowania umów cywilnoprawnych. Niniejszy artykuł stanowi próbę oceny skuteczności mechanizmów prawnych, jakie przewiduje polski ustawodawca w celu przeciwdziałania temu zjawisku. Chodzi tu zarówno o instrumenty znane na gruncie prawa pracy (powództwo o ustalenie istnienia stosunku pracy, odpowiedzialność wykroczeniowa pracodawcy, płaca minimalne w umowach zlecenia), jak i te właściwe dla prawa podatkowego i ubezpieczeniowego.

Keywords: *Samozatrudnienie, praca na własny rachunek, jednoosobowe przedsiębiorstwo, stosunek pracy, prawo pracy*

Abstract

The phenomenon of self-employment in Poland (also in the European Union) has been known for many years as a manifestation of individual entrepreneurship focused on economic activity that provides a source of income. In practice, however, self-employment is very often used in conditions typical for employment relationship, in order to reduce labour costs and make employment policy more flexible. These practices do not comply with the law, in particular Article 22 of the Polish Labour Code, which prohibits in such cases the use of civil law contracts. This article is an attempt to assess the effectiveness of legal mechanisms provided by the Polish legislator in order to counteract this phenomenon. This concerns both the instruments known on the ground of labour law (an action for the establishment of the existence of an employment relationship, the employer's responsibility for offences, minimum wage in the mandate contracts), as well as those specific to tax law and insurance law.

Keywords: *Self-employment, one-person enterprise, employment relationship, labor law*

1.Pojęcie samozatrudnienia

Zjawisko pracy na własny rachunek w Unii Europejskiej znane jest od wielu lat jako przejaw indywidualnej przedsiębiorczości nakierowanej na działalność gospodarczą zapewniającą jednostce źródło dochodu. Upowszechnienie tej formy aktywności, określanej niekiedy mianem „samozatrudnienia", „samodzielnej działalności zarobkowej", czy też „działalności

gospodarczej osób fizycznych", jest efektem kolejnego etapu rozwoju rynku pracy, który poprzedzało częste korzystanie z pracy w niepełnym wymiarze czasu pracy, pracy na czas określony czy leasingu pracowniczego. W krajach UE od kilku lat poziom pracy na własny rachunek utrzymuje się na stabilnym poziomie ok. 16%. Polska nie odbiega znacząco od tej średniej. Według danych GUS, w trzecim kwartale 2013 r. pracujący na własny rachunek stanowili 18,4 % ogółu pracobiorców. Największy udział samozatrudnienia odnotowuje się w sektorze usług, gdzie ok. 60% zatrudnionych pracuje na własny rachunek. Występuje ono najczęściej w takich obszarach aktywności, jak: budownictwo, transport, dystrybucja towarów w handlu, usługi dla biznesu, hotelarstwo oraz usługi gastronomiczne.

Duże wątpliwości budzi doprecyzowanie pojęcia „samozatrudnienie", które niekiedy jest określane także mianem pracy na własny rachunek. Rozstrzygnięcie tej kwestii napotyka na istotne problemy z uwagi na brak w obowiązującym prawie przepisów, które dookreślałyby ten termin. Także w polskim prawie ustawodawca posługuje się tym pojęciem, nie definiując go. Przykładowo w Kodeksie pracy (ustawa z dnia 26 czerwca 1974 r., Dz.U. z 2016 r., poz. 1666 ze zm.) wskazuje się na termin „osoba prowadząca na własny rachunek działalność gospodarczą" (art. 304 § 1 i 3, art. 304^1 k.p., zaś w ustawie z dnia 10 października 2002 r. o minimalnym wynagrodzeniu za pracę (Dz.U. z 2015 r., poz. 2008 ze zm.) możemy odnaleźć pojęcie „osoba fizyczna wykonująca działalność gospodarczą". Co więcej, nie ma również kompleksowej regulacji, która w sposób całościowy i systemowy normowałaby najistotniejsze aspekty pracy osób działających w ramach samozatrudnienia (w szczególności: zasady świadczenia usług, warunki pracy, ochronę socjalną, status prawny tych osób). Powyższa sytuacja prowadzi do daleko idących rozbieżności w zakresie rozumienia terminu „samozatrudnienie" w naukach ekonomicznych i doktrynie prawa. Na trudności związane z interpretacją pojęcia pracy na własny rachunek wskazuje A.L. Sanchez Iglesias [Sanchez Iglesias 2005, s. 166]. Według niego, złożony charakter tego zjawiska oraz różnorodność sytuacji, w jakich może ono występować, istotnie komplikują ustalenie wizerunku niejednorodnej grupy osób pracujących na własny rachunek.

Przyjmując szerokie rozumienie pojęcia pracy na własny rachunek należy uznać, iż chodzi o taki rodzaj aktywności, w ramach której osoba prowadząca daną działalność, z prawnego punktu widzenia, ponosi wszelkie konsekwencje majątkowe oraz ryzyko gospodarcze związane z realizacją tejże działalności, odpowiadając za jej efekty całym swoim majątkiem. Praca na własny rachunek powszechnie nazywana jest w doktrynie prawa „samozatrudnieniem" [Kubot 2000, s. 8; Davies 1999, s. 199.; Hajn 2003, s. 75; Pisarczyk 2003, s. 134]. Termin ten pochodzi od angielskiego słowa *self-employment*. Zdaniem J. Jończyka, bardziej trafnym terminologicznie tłumaczeniem określenia *self-employment* na język polski byłoby sformułowanie „sięzatrudnienie", które lepiej oddaje istotę tego zjawiska [J. Jończyk 2000, s. 40]. Mamy bowiem tutaj do czynienia z sytuacją, w ramach której osoba wykonująca pracę na własny rachunek jest „zatrudnioną przez siebie".

Według mnie, praca na własny rachunek polega na świadczeniu usług (pracy) na rzecz jednego lub kilku (wielu) podmiotów zamawiających przez osoby fizyczne prowadzące, na własną odpowiedzialność i ryzyko, działalność gospodarczą w charakterze przedsiębiorcy, bez możliwości zatrudniania pracowników lub korzystania z cudzej pracy na podstawie umów cywilnoprawnych. Dokonując analizy powyższej definicji, nie budzi wątpliwości fakt, iż samozatrudnienie winno być utożsamiane ze świadczeniem usług (pracy) na rzecz zamawiającego przez osoby fizyczne prowadzące własną działalność gospodarczą w charakterze przedsiębiorcy. Zgodnie z założeniami ustawy z dnia 2 lipca 2004 roku o swobodzie działalności gospodarczej (Dz. U. z 2016 r., poz. 1829 ze zm.), status przedsiębiorcy posiadają te osoby fizyczne, które we własnym imieniu wykonują działalność gospodarczą rozumianą jako zarobkowa działalność wytwórcza, budowlana, handlowa, usługowa, rozpoznawanie i wydobywanie kopalin ze złóż, a także działalność zawodowa.

Istotnym wymogiem formułowanym przez ustawodawcę jest to, że działalność ta musi być realizowana przez osoby fizyczne w sposób zorganizowany i ciągły. Ponadto, według art. 4 ust. 2 cytowanego aktu, za przedsiębiorców uznaje się także wspólników spółki cywilnej w zakresie wykonywanej przez nich działalności gospodarczej. Konstatując należy jednoznacznie stwierdzić, iż do kręgu samozatrudnionych zalicza się te osoby fizyczne, które są przedsiębiorcami w rozumieniu ustawy o swobodzie działalności gospodarczej, w tym także osoby fizyczne prowadzące działalność gospodarczą w formie spółki cywilnej uregulowanej w art. 860 – 875 ustawy z dnia 23 kwietnia 1964 r. – Kodeks cywilny oraz osoby fizyczne świadczące usługi na zasadzie wolnego zawodu. Pojęcie tzw. wolnych zawodów nie posiada jednolitej definicji normatywnej.
O ile nie ma zastrzeżeń co do tego, że status pracującego na własny rachunek zarezerwowany jest dla osób fizycznych, które są przedsiębiorcami w rozumieniu ustawy o swobodzie działalności gospodarczej, o tyle w literaturze przedmiotu istotne rozbieżności dotyczą dodatkowych warunków, jakie powinna spełniać osoba fizyczna, aby należeć do kręgu samozatrudnionych. Pierwsza wątpliwość odnosi się do ilości kontrahentów, z którymi może współpracować osoba prowadząca działalność na własny rachunek. Według niektórych przedstawicieli doktryny prawa, aby osoba fizyczna – przedsiębiorca miała status samozatrudnionego musi świadczyć swoje usługi wyłącznie lub głównie na rzecz jednego podmiotu zamawiającego [Kubot 2005, s. 81; Skąpski, 2010, s. 87 i n.; Liszcz, 2012, s. 18]. Zdaniem Z. Kubota, „<<samozatrudnieniem>> jest bowiem wykonywanie pracy (usług) przez osoby fizyczne prowadzące działalność gospodarczą lub wykonujące wolny zawód w warunkach względnie trwałej zależności wobec zamawiającego. Umowy zawierane przez <<samozatrudnionego>> rodzą więc stosunki zależności wykonawcy pracy (usług) podobne do zależności zatrudnionych" [Kubot 2000, s. 17-18]. Według tego Autora, „z punktu widzenia statusu prawnego wykonawcy mamy tutaj do czynienia z pracą niezależną (samodzielną), a ze względu na powiązania kontraktowe – z pracą zależną". Zdaniem M. Skąpskiego, samozatrudnienie nie jest synonimem prowadzenia w sposób nieograniczony działalności gospodarczej przez osoby fizyczne, jest zaś kategorią pojęciową, w której łączą się elementy takiej działalności z zależnością ekonomiczną od podmiotu zlecającego usługi. Osobiście nie przekonuje mnie powyższe stanowisko. Nie ma bowiem na gruncie obowiązującego prawa wymogu, aby osoba fizyczna pracująca na własny rachunek (samozatrudniony) musiała świadczyć swoje usługi wyłącznie na rzecz jednego podmiotu zamawiającego (niewielkiej ich liczby), w warunkach zależności ekonomicznej. Co więcej, przepisy prawa pracy obejmujące ochroną osoby pracujące na własny rachunek, nie posługują się w ogóle kryterium zależności ekonomicznej od podmiotu zatrudniającego. Ochronie w zakresie bezpieczeństwa i higieny pracy podlegają te osoby prowadzące na własny rachunek działalność gospodarczą, których pracę organizuje podmiot zamawiający, w szczególności, gdy usługi są wykonywane w zakładzie pracy lub innym miejscu przez niego wyznaczonym (art. 304 § 1 i 3 k.p.). Z kolei ochrona w przedmiocie płacy minimalnej dotyczy tych osób fizycznych, wykonujących działalność gospodarczą na podstawie umów cywilnoprawnych, w odniesieniu do których o miejscu i czasie świadczenia usługi decyduje pomiot ją zlecający (art. 8d ust. 1 pkt. 1 ustawy o minimalnym wynagrodzeniu za pracę). Ochrona przed dyskryminacją obejmuje zaś wszystkie osoby fizyczne pracujące na własny rachunek w zakresie warunków podejmowania i wykonywania działalności gospodarczej na podstawie umowy cywilnoprawnej (art. 2 ust. 1 w zw. z art. 4 pkt 2 i 8 ust. 1 pkt 2 ustawy z dnia 3 grudnia 2010 r. o wdrożeniu niektórych przepisów Unii Europejskiej w zakresie równego traktowania, Dz.U. z 2016 r., poz. 1219). W żadnej z przedstawionych tu regulacji nie występuje kryterium zależności ekonomicznej, a z ochrony mogą korzystać także osoby fizyczne świadczące swoje usługi na rzecz wielu różnych podmiotów zamawiających, nawet jeżeli praca realizowana jest w zakładzie należącym do pomiotu zlecającego i to on decyduje

o miejscu i czasie jej wykonywania. Należy również pamiętać o tym, że kryterium zależności ekonomicznej nie stanowi elementu konstrukcyjnego stosunku pracy i w wielu przypadkach mamy do czynienia z sytuacją, w której także pracownicy wykonują zadania w warunkach braku zależności ekonomicznej od pracodawcy (np. pracownicy na wysokich stanowiskach kierowniczych czy świadczący pracę na rzecz kilku pracodawców). Uważam zatem, że osoba fizyczna mająca status samozatrudnionego może świadczyć swoje usługi zarówno na rzecz jednego, jak i kilku (wielu) podmiotów zamawiających, od których nie musi być zależna ekonomicznie. Kryterium to powinno być natomiast – czego niestety ustawodawca obecnie nie dostrzega – brane pod uwagę przy ustalaniu zakresu ochrony, jaką należy zagwarantować osobom fizycznym pracującym na własny rachunek. Zgodzić należy się zatem z S. Deakinem, który wyodrębnia dwie kategorie samozatrudnionych, a mianowicie zależnych samozatrudnionych (*dependent self – employed*) oraz niezależnych samozatrudnionych (*independent self – employed*) [Deakin 2002, s. 191].

Po drugie, wątpliwości budzi to, czy do kręgu osób pracujących na własny rachunek (samozatrudnionych) można zaliczyć wyłącznie osoby fizyczne, które nie zatrudniają osób trzecich przy wykonywaniu usług na rzecz zamawiającego, czy też status samozatrudnionego może również przysługiwać tym osobom fizycznym, które zatrudniają osoby trzecie do prowadzonej przez siebie działalności gospodarczej, uzyskując przymiot podmiotu zatrudniającego (pracodawcy). Według mnie, pierwsze z wymienionych powyżej stanowisk należy uznać za uzasadnione. Na fakt ograniczenia pojęcia „samozatrudnienie" jedynie do osób fizycznych, które samodzielnie prowadzą działalność gospodarczą, bez angażowania pracowników lub korzystania z cudzej pracy na podstawie umów cywilnoprawnych, wskazuje istota tego zjawiska, które dotyczy świadczenia usług na rzecz zamawiającego przez jednoosobowe podmioty gospodarcze. Zdaniem I. Boruty, osoby fizyczne działające w warunkach samozatrudnienia powinny wykazywać się „osobistą aktywnością" przy wykonywaniu pracy dla podmiotu zamawiającego [Boruta 2005, s. 3] Co najwyżej można zastanowić się nad ewentualnością korzystania przez osoby samozatrudnione, przy prowadzeniu jednoosobowej działalności gospodarczej, z pomocy członków najbliższej rodziny.

2. Przyczyny stosowania samozatrudnienia w warunkach charakterystycznych dla stosunku pracy

Na gruncie polskim w obrocie gospodarczym od dłuższego czasu mamy do czynienia z niepokojącym zjawiskiem wykorzystywania pracy na własny rachunek w warunkach charakterystycznych dla stosunku pracy. Dotyczy to głównie sytuacji, w których pracodawcy podejmują kroki idące w kierunku zastępowania pracowników osobami fizycznymi świadczącymi pracę na zasadzie samozatrudnienia. Praktyka ta sama w sobie nie jest niczym nagannym, o ile osoby fizyczne wykonują swoje usługi w warunkach innych niż charakterystyczne dla stosunku pracy, w szczególności bez pracowniczego podporządkowania oraz na własne ryzyko gospodarcze. Bardzo często zdarza się jednak, iż samozatrudnieni pracują na rzecz jednego podmiotu zamawiającego w warunkach podporządkowania co do miejsca, czasu i sposobu świadczenia pracy, a także na jego ryzyko. Powszechnym zjawiskiem jest wręcz proponowanie pracownikom przez pracodawcę przekształcenia ich stosunków pracy w jednoosobową działalność gospodarczą, której przedmiotem będzie wykonywanie tej samej pracy, ale jako usługi świadczonej przez pozornie niezależnego przedsiębiorcę. Chodzi o sytuację, w ramach której osoba fizyczna (były pracownik) prowadzi na rzecz byłego pracodawcy działalność gospodarczą polegającą na wykonywaniu dotychczasowych obowiązków pracowniczych w warunkach charakterystycznych dla stosunku pracy. Zjawisko to w literaturze przedmiotu określane jest mianem „pozornego samozatrudnienia". A. Chobot pozornych przedsiębiorców określa jako „*fake – self employed*

people" [Chobot 1997, s. 169]. Najczęściej występuje ono w takich branżach, jak budownictwo, transport oraz służba zdrowia, a także w niektórych zawodach, np. sprzątaczki czy ślusarza.

Głównym powodem zastępowania pracowników samozatrudniającymi się przedsiębiorcami jest chęć ograniczenia kosztów pracy oraz obciążeń publicznoprawnych, jakie związane są z angażowaniem pracowników. W momencie zastąpienia pracownika pracującym na własny rachunek, pracodawca uwalania się od kosztów, jakie wiążą się z zapewnieniem odpowiedniego poziomu ochrony i przywilejów na gruncie stosunku pracy. Dotyczą one w szczególności: płatnych urlopów wypoczynkowych i innych płatnych przerw w świadczeniu pracy, wynagrodzenia za czas niezdolności do pracy z powodu choroby, innych obowiązkowych świadczeń, takich jak odprawy (emerytalno-rentowe, pośmiertne czy z tytułu rozwiązania stosunku pracy z przyczyn leżących po stronie pracodawcy), świadczenia odszkodowawcze i kompensacyjne, nagrody jubileuszowe. Ponadto pracodawca przerzuca na samozatrudnionego daniny o charakterze publicznoprawny, zarówno gdy chodzi o składki na podatek dochodowy, jak i składki na obowiązkowe ubezpieczenie społeczne.

Zastępowanie etatów pracowniczych osobami pracującymi na własny rachunek prowadzi również do uelastycznienia procesu produkcyjnego oraz umożliwia podmiotom zatrudniającym realizację racjonalnej polityki zatrudnienia, w ramach której istnieje możliwość szybkiego dostosowywania poziomu zatrudnienia w przedsiębiorstwie do zmieniającej się koniunktury gospodarczej, bez potrzeby respektowania przepisów prawa pracy. Podmiot korzystający z pracy osób samozatrudnionych nie jest związany ograniczeniami dopuszczalności rozwiązywania stosunków pracy składającymi się na powszechną oraz szczególną ochronę trwałości pracowniczego zatrudnienia, takimi jak: wymóg zasadności wypowiedzenia umowy o pracę, konsultacja związkowa zamiaru wypowiedzenia umowy o pracę, zakaz wypowiedzenia i rozwiązywania stosunku pracy, czy kontrola sądowa wadliwego rozwiązania stosunku pracy z możliwością przywrócenia do pracy.

Ponadto rezygnacja ze stosunku pracy na rzecz samozatrudnienia pozwala podmiotowi zatrudniającemu bardziej efektywnie wykorzystać potencjał osoby świadczącej pracę. Nie jest on bowiem związany ograniczeniami, jakie przepisy prawa pracy wprowadzają co do zakresu pozostawania pracownika w dyspozycji pracodawcy. Nie obowiązują tu w szczególności maksymalne dobowe i tygodniowe normy czasu pracy, gwarantowane okresy odpoczynku czy ograniczenia dopuszczalności pracy w godzinach nadliczbowych, porze nocnej oraz w niedziele i święta.

Wykorzystanie pracy na własny rachunek w miejsce stosunku pracy daje również podmiotowi zatrudniającemu możliwość pełniejszego i bardziej skutecznego zabezpieczenia jego interesów majątkowych. Po pierwsze, samozatrudniony – w przeciwieństwie do pracownika – świadcząc usługi na podstawie umów prawa cywilnego ponosi pełną odpowiedzialność materialną, zarówno za rzeczywiste straty, jak i utracone korzyści. Po drugie zaś, istnieje możliwość wprowadzenia do kontraktu dodatkowych mechanizmów prawnych, niedopuszczalnych na gruncie stosunku pracy, które pozwolą na efektywniejsze wyegzekwowanie roszczeń majątkowych od wykonawcy pracy (np.: kara umowna, weksel *in blanco*, czy poręczenie zewnętrzne).

Konstatując, rezygnacja ze stosunku pracy powoduje zmianę reżimu prawnego, w ramach którego kształtowane są wzajemne relacje pomiędzy podmiotem zatrudniającym a wykonawcą pracy. Dotychczasowy pracodawca przestaje być związany ograniczeniami wynikającymi z przepisów prawa pracy nastawionego na ochronę pracownika jako słabszej strony stosunku pracy, a jego pozycja wobec jednoosobowego przedsiębiorcy wyznaczana jest w oparciu o cywilnoprawną zasadę swobody umów.

Problemem staje się również postawa samozatrudnionych, którzy z różnych względów, niekiedy z przymusu ekonomicznego, godzą się na tę formę aktywności zawodowej, akceptując wykorzystywanie pracy na własny rachunek w warunkach charakterystycznych dla stosunku pracy. Po wprowadzeniu w życie w Polsce minimalnej stawki godzinowej na poziomie 13 zł. brutto (Dz.U. z 2016 r., poz. 1265), tendencja ta może się istotnie nasilić, gdyż nowe przepisy dają szansę na dużo wyższe wynagrodzenie minimalne w ramach samozatrudnienia, gdzie nie mają zastosowania przepisy prawa pracy ograniczające normy i wymiar czasu pracy. Ustawa o minimalnym wynagrodzeniu po zmianach obejmuje bowiem swoim zakresem również osoby fizyczne prowadzące jednoosobową działalność gospodarczą (bez możliwości zatrudniania pracowników lub zleceniobiorców), o ile o miejscu i czasie świadczenia usług nie będzie decydował wyłącznie samozatrudniony, a wynagrodzenie nie będzie miało jedynie charakteru prowizyjnego (art. 1 pkt 1b lit. a w zw. z art. 8d ust. 1 pkt. 1 ustawy o minimalnym wynagrodzeniu za pracę).

3. Analiza prawnych mechanizmów przeciwdziałania stosowaniu samozatrudnienia w warunkach charakterystycznych dla stosunku pracy

Praktyka wykorzystywania pracy na własny rachunek w warunkach charakterystycznych dla stosunku pracy jest sprzeczna z przepisami polskiego prawa pracy. Już na pierwszy rzut oka widać daleko idące odrębności pomiędzy świadczeniem usług w ramach jednoosobowej działalności gospodarczej a zatrudnieniem pracowniczym. Pracownik na podstawie stosunku pracy zobowiązuje się do osobistego wykonywania za wynagrodzeniem czynności określonego rodzaju na rzecz podmiotu zatrudniającego i pod jego kierownictwem, w miejscu i czasie wyznaczonym przez ten podmiot oraz na jego ryzyko (art. 22 § 1 k.p.). Pracodawca posiada tu niekwestionowane uprawnienia w zakresie konkretyzacji obowiązków pracowniczych dotyczących przedmiotu świadczenia pracy (rodzaju zadań i sposobu ich wykonywania), miejsca i czasu świadczenia pracy oraz organizacji pracy. Konkretyzacji tej dokonuje w drodze wiążących poleceń, które dotyczą pracy i nie mogą być sprzeczne z przepisami prawa lub umową o pracę (art. 100 § 1 k.p.). Tymczasem usługi, które świadczy osoba pracująca na własny rachunek realizowane są w warunkach daleko idącej autonomii i samodzielności oraz braku podporządkowania Nie oznacza to oczywiście, że samozatrudniony jest całkowicie niezależny od podmiotu zamawiającego. Ta zależność występuje (zwłaszcza, gdy osoba fizyczna – przedsiębiorca świadczy usługi na rzecz jednego tylko podmiotu, który jest byłym pracodawcą tej osoby), ale ma zupełnie inny charakter niż pracownicze podporządkowanie. Jej przejawem może być: kontrola wykonywania zadań; rozliczanie samozatrudnionego z wyników pracy włącznie z możliwością rozwiązania kontraktu, a także pewne elementy podległości co do miejsca i czasu pracy oraz porządku i organizacji pracy, o ile usługi świadczone są w zakładzie pracy należącym do podmiotu zamawiającego. Ponadto osoba realizująca usługi w ramach działalności gospodarczej działa – inaczej niż w zatrudnieniu pracowniczym – na własny rachunek i ryzyko, ponosząc koszty związane z organizacją stanowiska pracy czy wyposażeniem w sprzęt i narzędzia niezbędne do wykonania zadań wynikających z umowy cywilnoprawnej.

Wskazane powyżej różnice pomiędzy pracą na własny rachunek a stosunkiem pracy w praktyce obrotu gospodarczego ulegają jednak istotnemu zatarciu. Sprzyja temu daleko idąca swoboda w zakresie kształtowania treści umowy cywilnoprawnej łączącej samozatrudnionego z podmiotem zamawiającym. Pozwala ona na modyfikowanie wzajemnych relacji stron w kierunku zatrudnienia pracowniczego, niestety bardzo często sprzecznie z przepisami prawa pracy. Co więcej, wprowadzenie godzinowej płacy minimalnej w cywilnoprawnych umowach o świadczenie usług jeszcze bardziej zaciera granice pomiędzy samozatrudnieniem a stosunkiem pracy. Zgodnie z art. 8a znowelizowanej ustawy o minimalnym wynagrodzeniu za pracę, w przypadku umów o świadczenie usług (zawieranych także w ramach

jednoosobowej działalności gospodarczej) wysokość wynagrodzenia powinna być ustalona w umowie w taki sposób, aby wynagrodzenie za każdą godzinę świadczenia usług nie było niższe niż wysokość minimalnej stawki godzinowej ustalonej we wskazanym ustawowo trybie. Wypłaty tego wynagrodzenia w wysokości wynikającej z wysokości minimalnej stawki godzinowej dokonuje się – podobnie, jak w stosunku pracy – w formie pieniężnej, a w przypadku umów zawartych na czas dłuższy niż 1 miesiąc, wypłata musi nastąpić co najmniej raz w miesiącu.

Na problem stosowania samozatrudnienia w warunkach charakterystycznych dla stosunku pracy zwróciła również uwagę Międzynarodowa Organizacja Pracy. Europejski Komitet Ekonomiczno-Społeczny wydał w związku z tym opinię w sprawie nadużywania statusu samozatrudnienia (opinia z inicjatywy własnej w sprawie nadużywania statusu samozatrudnienia, Dz. U. UE C z 2013 r., Nr 161, poz. 140), w której znajdują się szczegółowe wskazówki dla państw członkowskich. Zgodnie z tą opinią, rozpatrując status osoby, która nominalnie jest samozatrudniona i na pierwszy rzut oka nie jest uważana za pracownika najemnego, należy (można) zakładać, że występuje stosunek pracy, a usługi są świadczone na rzecz pracodawcą, jeśli wobec osoby świadczącej pracę spełnionych jest przynajmniej pięć spośród wymienionych tam kryteriów: co najmniej 75 % przychodów tej osoby w okresie roku zależy od jednej osoby, na której rzecz świadczone są usługi; zależy ona od osoby, na której rzecz świadczone są usługi, jeśli chodzi o określenie rodzaju, miejsca i sposobu wykonania zleconej pracy; wykonuje pracę, używając wyposażenia, narzędzi lub materiałów dostarczanych przez osobę, na której rzecz świadczone są usługi; podlega harmonogramowi pracy lub minimalnym okresom pracy ustalonym przez osobę, na której rzecz świadczone są usługi; nie może polecać swojej pracy innym osobom, które zastąpiłyby ją w wykonywaniu pracy; jest włączona w struktury procesu produkcyjnego, organizację pracy lub hierarchię przedsiębiorstwa lub innej organizacji; działalność tej osoby stanowi kluczowy element organizacji i realizacji celów osoby, na której rzecz świadczone są usługi; wykonuje podobne zadania, jak zatrudnieni pracownicy, lub w wypadku outsourcingu, wykonuje podobne zadania do realizowanych poprzednio przez pracowników.

Ustawodawca polski, aby przeciwdziałać praktykom wykorzystywania pracy na własny rachunek w warunkach charakterystycznych dla stosunku pracy, wprowadził do naszego porządku prawnego określone regulacje prawne. Granicę stosowania działalności gospodarczej do świadczenia usług na rzecz podmiotu zamawiającego wyznacza art. 22 § 1^1 k.p. Zgodnie z tym przepisem, zatrudnienie w warunkach charakterystycznych dla stosunku pracy, a więc gdy praca świadczona jest odpłatnie, pod kierownictwem podmiotu zamawiającego, w miejscu i czasie wyznaczonym przez ten podmiot, jest zatrudnieniem na podstawie stosunku pracy bez względu na nazwę zawartej przez strony umowy. Cytowane tu unormowanie oznacza, że jeżeli usługi świadczone przez osobę fizyczną prowadzącą działalność gospodarczą na rzecz podmiotu zamawiającego (np. byłego pracodawcy) odpowiadają właściwościom stosunku pracy, wówczas istniejąca pomiędzy stronami umowa cywilnoprawna, bez względu na jej nazwę, może zostać zakwalifikowana jako stosunek pracy. Właściwym do dokonania takiej kwalifikacji jest sąd pracy, który czyni to, w oparciu o okoliczności faktyczne danego konkretnego przypadku, z reguły na podstawie powództwa o ustalenie istnienia stosunku pracy, złożonego przez posiadającego interes prawny przedsiębiorcę (osobę fizyczną) lub występującego w jego imieniu inspektora pracy. Powyższą konstatację potwierdza wyrok z dnia 24 lipca 2001 r. (I PKN 560/00, Orzecznictwo Sądów Polskich 2002, nr 5, poz. 70), w którym Sąd Najwyższy przyjął, iż „zgłoszenie w urzędzie gminy do ewidencji działalności gospodarczej prowadzenia własnej działalności gospodarczej polegającej na świadczeniu usług pośrednictwa sprzedaży (i uzyskanie wpisu do tej ewidencji), a następnie zawarcie umowy o świadczenie usług pośrednictwa sprzedaży, nie wyklucza ustalenia i oceny, że strony umowy łączył w istocie stosunek zatrudnienia

wynikający z umowy o pracę na stanowisku sprzedawcy". Moim zdaniem, możliwość zakwestionowania umowy cywilnoprawnej stanowiącej podstawę do świadczenia usług na rzecz podmiotu zamawiającego i uznania jej w konsekwencji za umowę o pracę, powinna być oceniana z perspektywy dwóch zasadniczych kryteriów. Pierwszym z nich jest podporządkowanie osoby fizycznej realizującej działalność gospodarczą wobec zamawiającego, rozumiane jako podległość poleceniom konkretyzującym przedmiot pracy (rodzaj zadań i sposób ich wykonania), miejsce oraz czas świadczenia usług, a drugim – ryzyko związane z wykonywaniem pracy spoczywające na podmiocie zamawiającym.
Dla wzmocnienia skuteczności omówionej wyżej regulacji prawnej oraz w reakcji na nasilające się w praktyce zjawisko przekształcania stosunków pracy w jednoosobową działalność gospodarczą, przy jednoczesnym zachowaniu dotychczasowych warunków zatrudnienia, ustawodawca polski w 2002 roku wprowadził do art. 22 k.p. § 1^2. Zgodnie z tym przepisem, nie jest dopuszczalne zastąpienie umowy o pracę umową cywilnoprawną przy zachowaniu warunków wykonywania pracy charakterystycznych dla stosunku pracy. Naruszenie przez strony cytowanego tu zakazu nie powoduje oczywiście automatycznej nieważności umowy prawa cywilnego, ale daje podstawy do jej zakwestionowania przed sądem pracy. Zawieranie umów cywilnoprawnych w warunkach, w których zgodnie z art. 22 § 1 k.p. powinna być zawarta umowa o pracę ustawodawca traktuje jako wykroczenie przeciwko prawom pracownika zagrożone karą grzywny od 1.000 zł do 30.000 zł. (art. 281 pkt 1 k.p.).

4. Ocena skuteczności prawnych mechanizmów przeciwdziałania stosowaniu samozatrudnienia w warunkach charakterystycznych dla stosunku pracy

Z perspektywy kilkunastu lat obowiązywania w Polsce analizowanej regulacji prawnej, negatywnie należy ocenić skuteczność wprowadzonych rozwiązań. Zasadniczym powodem takiego stanu rzeczy jest liberalna linia orzecznictwa sądów pracy, które przypisują oświadczeniom woli stron nadmierną wagę w porównaniu do faktycznych warunków wykonywanych usług (pracy). Wyjątkiem jest tutaj cytowany wyżej wyrok Sądu Najwyższego z dnia 24 lipca 2001 r. W jego uzasadnieniu wskazuje się, iż wyraz woli stron zawarty w nazwie pozornej umowy cywilnoprawnej nie może mieć decydującego znaczenia, bo strony nie mogą swoimi – nawet zgodnymi – oświadczeniami zniwelować skutków bezwzględnie obowiązujących przepisów prawa pracy (art. 22 § 1^1 k.p.). Zdaniem SN, najważniejsza dla kwalifikacji prawnej zawartej umowy jest treść świadczenia przyjętego do realizacji przez pracobiorcę, a więc rodzaj pracy, sposób jej świadczenia, jej charakter i warunki wykonywania. Niestety w zdecydowanej większości spraw o ustalenie istnienia stosunku pracy SN kieruje się przede wszystkim zasadą woli stron (swobody umów), dając jej prymat nad bezwzględnie obowiązującymi przepisami prawa pracy, zwłaszcza zaś nad art. 22 § 1^1 k.p. J. Śniadek (były Przewodniczący NSZZ „Solidarności") stwierdził, iż „taka formuła jest niedopuszczalna. To prawo określa, kiedy mamy do czynienia z umową o pracę. Za wolą samozatrudnionego zwykle kryje się szantaż jego byłego pracodawcy". Zdaniem B. Wagner, o rzeczywistej swobodzie kontraktowania można zasadnie mówić jedynie wtedy, gdy równości formalnej (prawnej) stron towarzyszy równość ekonomiczna i socjalna [Wagner 1987, s. 64]. Taka równość z oczywistych względów nie występuje jednak pomiędzy pracującym na własny rachunek a podmiotem zamawiającym. Jeżeli zatem w konkretnym przypadku rodzaj świadczonych przez samozatrudnionego usług, sposób ich realizacji oraz charakter i warunki wykonywania pracy wskazują jednoznacznie, iż mamy do czynienia z dominacją cech charakterystycznych dla stosunku pracy (zwłaszcza, gdy występuje podległość poleceniom przełożonych, które na bieżąco konkretyzują rodzaj świadczonej pracy oraz miejsce, czas i sposób jej wykonywania, a usługi wykonywane są na ryzyko podmiotu zamawiającego), wola stron przejawiająca się w treści cywilnoprawnej umowy o

świadczenie usług oraz w jej nazwie, nie może przesądzać o kwalifikacji prawnej takiej umowy. Sąd w tej sytuacji musi stosować się do bezwzględnie obowiązujących przepisów art. 22 k.p., orzekając ustalenie istnienia stosunku pracy. Dopiero w razie stwierdzenia, iż zawarta pomiędzy samozatrudnionym a podmiotem zamawiającym umowa wykazuje cechy wspólne dla umowy o pracę i umowy prawa cywilnego z jednakowym ich nasileniem, co winno mieć swoje potwierdzenie w faktycznych warunkach wykonywania pracy, rozstrzygająca o jej typie powinna być *in concreto* wola stron.

Zdaniem Państwowej Inspekcji Pracy, dodatkową trudnością w skutecznej walce z praktyką wykorzystywania samozatrudnienia w warunkach charakterystycznych dla stosunku pracy jest postawa stron umowy cywilnoprawnej, zwłaszcza zaś osób fizycznych świadczących usługi na rzecz byłych pracodawców. Kierując się obawą utraty źródła dochodów, osoby te najczęściej nie są zainteresowane wytaczaniem powództw o ustalenie istnienia stosunku pracy w warunkach „pozornego" samozatrudnienia. W takich przypadkach inspektorzy pracy nie występują do sądu pracy z powództwem, wbrew woli samych zainteresowanych, pomimo że prawo daje im taką możliwość (art. 63^1 k.p.c.). Jak pokazuje praktyka, działanie inspektora pracy wbrew woli zainteresowanych stron nie przynosi oczekiwanych rezultatów, gdyż sądy pracy z reguły oddalają takie żądanie inspektora. W wyroku z dnia 3 czerwca 1998 r. (I PKN 170/98, OSNP 1999, nr 11, poz. 369) Sąd Najwyższy stwierdził bowiem, iż rolą ustalenia, że umowa nazwana umową zlecenia spowodowała w istocie nawiązanie stosunku pracy (art. 189 k.p.c. w zw. z art. 22 § 1 i 1^1 k. p.), nie jest przełamywanie zasady *pacta sunt servanda*, tylko ochrona osoby, która świadcząc pracę na warunkach umowy o pracę została pozbawiona pracowniczego statusu wskutek nadużycia ekonomiczno–organizacyjnej przewagi ze strony podmiotu zatrudniającego. Skoro zatem osoba fizyczna (samozatrudniony) nie jest zainteresowana ochroną, powództwo o ustalenie istnienia stosunku pracy należy oddalić. PIP w tego rodzaju sytuacjach może jedynie kierować pod adresem podmiotu zamawiającego, który wykorzystuje samozatrudnienie do warunków charakterystycznych dla stosunku pracy, wystąpienie, w którym będą ujęte niewiążące zalecenia co do konieczności przekształcenia wadliwych umów cywilnoprawnych w umowę o pracę. Niejednokrotnie w praktyce zdarza się również, że po wytoczeniu powództwa o ustalenie istnienia stosunku pracy, w sytuacji wykorzystania samozatrudnienia do warunków charakterystycznych dla stosunku pracy, osoby fizyczne wycofują je lub w toku postępowania przed sądem pracy oświadczają, że nie były zainteresowane zawarciem umowy o pracę. To istotnie osłabia skuteczność mechanizmów prawnych służących walce z samozatrudnieniem, które ukrywa rzeczywisty stosunek pracy.

Ustawodawca polski dążąc do ograniczenia zjawiska wykorzystywania samozatrudnienia do warunków charakterystycznych dla stosunku pracy postanowił również zmienić przepisy prawa podatkowego. Miała się do tego przyczynić obowiązująca od 1 stycznia 2007 roku nowelizacja ustawy o podatku dochodowym od osób fizycznych wyłączająca możliwość rozliczania się z fiskusem na zasadach właściwych dla przedsiębiorców (w oparciu o 19% podatek liniowy) w przypadku, gdy usługi świadczone przez osobę fizyczną na rzecz zamawiającego łącznie spełniają trzy przesłanki (art. 5b ust. 1 ustawy z dnia 26 lipca 1991 r. o podatku dochodowym od osób fizycznych, Dz. U. z 2016 r., poz. 2032 ze zm.): wykonywane są pod kierownictwem zlecającego oraz w miejscu i czasie przez niego wyznaczonym; wykonywane są bez ryzyka gospodarczego związanego z prowadzoną działalnością; odpowiedzialność wobec osób trzecich za rezultat tych usług i ich wykonywanie ponosi zlecający. Wskazane tu warunki w sposób ewidentny nawiązują do terminologii stosowanej przez ustawodawcę w kodeksie pracy i – moim zdaniem – ich łączne spełnienie daje podstawy do uznania, iż w konkretnym przypadku mamy do czynienia z samozatrudnieniem realizowanym sprzecznie z przepisami prawa pracy. Przedsiębiorcy (także osoby samozatrudnione) wypełniający wymienione wyżej przesłanki muszą rozliczać się według

skali podatkowej, tak jak wszyscy pozostali podatnicy. Ponieważ od 1 stycznia 2009 roku w Polsce obowiązują jedynie dwie stawki podatkowe (18% i 32%) oraz znacznie podwyższono progi podatkowe, samozatrudnionym (przedsiębiorcom) osiągającym niskie i średnie dochody bardziej opłaca się obecnie rozliczać według skali niż – jak to było poprzednio – na podstawie 19% -go podatku liniowego, co znacznie osłabia skuteczność tego unormowania.
Powyższe okoliczności powodują, że pomimo istnienia mechanizmów prawnych – moim zdaniem wystarczających – w przedmiocie przeciwdziałania stosowaniu pracy na własny rachunek w warunkach charakterystycznych dla stosunku pracy, skala samozatrudnienia, które narusza przepisy prawa pracy w Polsce jest znacząca. Według przybliżonych szacunków, liczba fikcyjnie samozatrudnionych wynosi około 500000 osób i ciągle rośnie. Biorąc pod uwagę niewłaściwą egzekucję prawa w tym zakresie (zwłaszcza przyjmowanie w orzecznictwie sądowym prymatu woli stron nad bezwzględnie obowiązującą regulacją art. 22 k.p., a także stosowanie niskich kar grzywny za fikcyjne samozatrudnienie) oraz wprowadzenie minimalnej godzinowej stawki wynagrodzenia na poziomie 13 zł. brutto dla większości osób pracujących na własny rachunek (dużo bardziej atrakcyjnej niż płaca minimalna uzyskiwana w zatrudnieniu pracowniczym), nie należy w najbliższym czasie spodziewać się zahamowania w Polsce zjawiska samozatrudnienia, którego celem jest ukrycie rzeczywistego stosunku pracy.

Sources

1. Boruta I., W sprawie przyszłości prawa pracy, PiZS 2005, nr 4;
2. Chobot A., Nowe formy zatrudnienia, Warszawa 1997;
3. Davies P.L., Zatrudnienie pracownicze i samozatrudnienie w świetle *common law* [w:] Referaty na VI Europejski Kongres Prawa Pracy i Zabezpieczenia Społecznego, Warszawa 1999;
4. Deakin S., The Many Futures of the Contract of Employment w: Labour Law in an Era of Globalization, Oxford University Press 2002;
5. Hajn Z., Elastyczność popytu na pracę w Polsce. Aspekty prawne w: Elastyczne formy zatrudnienia i organizacji pracy a popyt na pracę w Polsce, E. Kryńska, red., Warszawa 2003;
6. Jończyk J., O szczególnych formach zatrudnienia i formach ubezpieczeń społecznych [w:] Szczególne formy zatrudnienia, Z. Kubot (red.), Wrocław 2000, s. 40
7. Kubot Z. [w:] Prawo pracy. Zarys wykładu, H. Szurgacz (red.), Warszawa 2005, s. 81
8. Kubot Z., Szczególne formy zatrudnienia i samozatrudnienia [w:] Szczególne formy zatrudnienia, Z. Kubot (red.), Wrocław 2000;
9. Liszcz T., Prawo pracy, Warszawa 2012;
10. Pisarczyk Ł., Różne formy zatrudnienia, Warszawa 2003, s. 134.
11. Sanchez Iglesias A.L., Analiza społecznych i ekonomicznych skutków nietypowych form zatrudnienia w Unii Europejskiej na przykładzie Hiszpanii [w:] Elastyczny rynek pracy i bezpieczeństwo socjalne. Flexicurity po polsku?, Rymsza M. (red.), Warszawa 2005;
12. Skąpski M., Problem pojęcia i prawnej regulacji [w:] Stosunki zatrudnienia w dwudziestoleciu społecznej gospodarki rynkowej. Księga pamiątkowa z okazji jubileuszu 40-lecia pracy naukowej Prof. B. Wagner, A. Sobczyk (red.), Warszawa 2010;
13. Wagner B., Zasada swobody umów w prawie pracy, PiP1987, nr 6, s. 64

Contact

Dr hab. Tomasz Duraj (prof. University of Lodz)
Ul. Ogniskowa 13 m. 33 Lodz, Poland
Tel: +4822 604 100 257, email: tduraj@wpia.uni.lodz.pl

TYPE OF COMPETITION ON THE MARKET OF GENERAL AVIATION AIRPLANES

Dorota Liptakova, Alica Tobisova, Slavomir Kis,
Edina Jencova, Zuzana Susterova, Daniela Cekanova

Abstract

The aim of this paper is to describe the type of competition on the market of airplanes, more precisely the general aviation airplanes. The knowledge about distinguishing between different types of services and aircraft used in aviation is inevitable for any specialist interested to conduct business in aviation industry. This paper is also an introduction into further studies of the complexity of aviation market and its stakeholders. The data used are the generally acknowledged theory of type of market competition and available market data on general aviation airplanes put into context and allowing for conclusions to be drawn. Further references to interesting specifics of aviation market to be looked into are proposed at the end of the paper.

Key words: *general aviation airplanes, monopolistic competition, type of competition*

1 INTRODUCTION

Aviation is often perceived as a marvel of modern society, allowing the humans to travel around the world within a day. No place was ever easier to reach, no item easier to deliver. Within just several decades aviation has gone through an incredible transformation from the first flight at the beginning of the twentieth century to jet engines put in service on commercial airliners as soon as in the fifties. Newest generations of modern airplanes are capable of transporting hundreds of people safely over huge distances in a matter of hours.

Today aviation comprises the design, development, production, operation and use of aircraft, especially heavier than air aircraft. These can be used for many purposes, among them civil and military flights. Civil aviation includes all non-military flying, both general aviation and scheduled air transport. Each country regulates aviation differently, but general aviation usually falls under different regulations depending on whether it is private or commercial and on the type of equipment involved.

General aviation includes all non-scheduled civil flying, both private and commercial. Many different services can be part of general aviation, such as business flights, air charter, private aviation, flight training, ballooning, parachuting, gliding, hang gliding, aerial photography, foot-launched powered hang gliders, air ambulance, crop dusting, charter flights, traffic reporting, police air patrols and forest fire fighting.

Many small aircraft manufacturers serve the general aviation market, with a focus on private aviation and flight training. The most important recent developments for small aircraft have been the introduction of advanced avionics, including GPS, that were formerly found only in large airliners, and the introduction of composite materials to make small aircraft lighter and faster.

The general travelling public is usually familiar with two aircraft producers, American company Boeing and the European consortium Airbus. Their airplanes are very popular, but

in most cases they are used in scheduled transport services. The market of general aviation airplanes consist of many more producers who are competing for their market share.

2 SCOPE AND METHODOLOGY

The aviation industry consist of a wide range of stakeholders. Airports, airlines and providers of air traffic services are complemented by aircraft manufacturers supported by companies developing different parts of the aircraft, such as engines, avionics, airplane interior parts etc. The service of passenger transport needs to be supported by the airplane maintenance and handling. Passengers´ baggage has to be handled as well as their needs during long flights need be to catered to by provisioning of meals and drinks [2]. Nevertheless, all this wouldn´t be discussed if there were no airplanes to carry the passenger and cargo.

2.1 Scope of the research

The scope of the research is to analyse the market of general aviation airplanes and type of the competition in this market. The need for such analysis came with the realisation that the existing research in this field is only partial and should be discussed into greater detail. The knowledge about distinguishing between different types of services and aircraft used in aviation is inevitable for any specialist interested to conduct business in aviation industry. Just like the complexity of aviation industry briefly discussed in the above paragraph the scale of transportation services provided to public by air transport is wide and there are many things to be considered before starting a service. This paper is an initial source of information which have been only scarcely discussed by research community so far.

2.2 An overview of existing research

Existing papers in the topic of aviation and market focuses mostly on the competition between airlines and the determination and selection of different operational models [6]. Competition between air travel and other means of travel is also in great focus, especially the comparison between air travel and high-speed rail or rail transport in general. There is a great number of papers focusing on competition between airplane manufacturers. The battle between Boeing and Airbus was examined by Tonq and Tonq [7]. Their paper included a concise report on Airbus´ launch of its A380 superjumbo project and authors´ recommendations to Boeing and the U.S. government. The differing two technological frames in the competition between Airbus and Boeing were described by Ibsen [5].

Many more papers in this field can be found. Nevertheless, all of these contributions deal with the competition between the two biggest airplane manufacturers. At the same time the market of smaller aircraft is omitted.

2.3 Used methodology

For this research we analysed the general theory of type of market competition. At the same time we collected and categorized available information from airplane manufacturers. The data ware assessed and conclusions were drawn in reference to the theoretical part of the research work. Based on this research, there is room for a deeper investigation into market relationships and the behaviour and interdependence of market participants. This may be the goal of further research, as suggested in the section Discussion of this paper.

3 TYPES OF COMPETITION

In order to classify the type of competition between general aviation aircraft manufacturers the knowledge of different types of competition in the market is needed. Economists have

identified four types of competition – perfect competition, monopolistic competition, oligopoly, and monopoly, which will be described in the following section.

3.1 Perfect competition

Perfect competition is characterized by many buyers and sellers, many products that are similar in nature and, as a result, many substitutes. Perfect competition from a consumer´s point of view could be understood as an ideal structure of the market, where there are few, if any, barriers to entry for new companies, and prices are determined by supply and demand. Thus, producers in a perfectly competitive market do not have any leverage. Let´s imagine the behaviour of a consumer in a perfectly competitive market. Should a single firm decide to increase its selling price of a good, the consumer can just turn to the nearest competitor for a better price, causing any firm that increases its prices to lose market share and profits.

3.2 Monopoly

At the opposite end of the spectrum from perfect competition lie monopolies. In perfect competition, there are many small companies, none of which can control prices; they simply accept the market price determined by supply and demand. In a monopoly there´s only one seller in the market and the customers don´t have other option that to accept the terms and prices charged by the seller. The market could be a geographical area, such as a city or a regional area, and doesn't necessarily have to be an entire country.

In the aviation industry the providers of air traffic control services are monopolies, as there is usually only one provider controlling the airspace over the whole country to ensure continuous overpass for the airplanes and full overview of the situation in the sky above the country.

3.3 Oligopoly

In an oligopoly, there are only a few firms that make up an industry. This select group of firms has control over the price. Just like a monopoly, an oligopoly has high barriers to entry to keep out potential competitors. The products of the oligopolistic firms are often very similar and, therefore, the companies, which are competing for market share, are interdependent as a result of market forces. If a company starts selling its product at a lower price, it will get a greater market share, thereby forcing its competitors to lower its prices as well. On the other hand opportunity arises to control and intentionally increase the product prices after mutual agreement. Such an act (cartel) is illegal.

In aviation, handling companies and/or fuelling agents at airports create oligopolistic market, competing for their customers, the airlines.

3.4 Monopolistic competition

In monopolistic competition there are many sellers, but they don't sell identical products. Instead, they sell differentiated products. Those can be products that differ somewhat, or are perceived to differ, even though they serve a similar purpose. Collins [1] states that products can be differentiated in a number of ways, including quality, style, convenience, location, and brand name. Thus these products can satisfy the different needs of users. The entry into such market is relatively easy; the main goal is to detect a need that has not been fully satisfied by existing products. Nevertheless, if the price for the product goes too high, the seller will lose business to a competitor. Under monopolistic competition, therefore, companies have only limited control over price.

3.5 Comparison of the types of competition

When these four types of competition on the market are compared, the control over the market and number of competitors can be identified as the main distinguishing elements. This comparison is presented in a graphical form in Figure 1. Different types of competition are arranged in a scale according to the rising control over the market and number of competitors in the market with each type of concurrence.

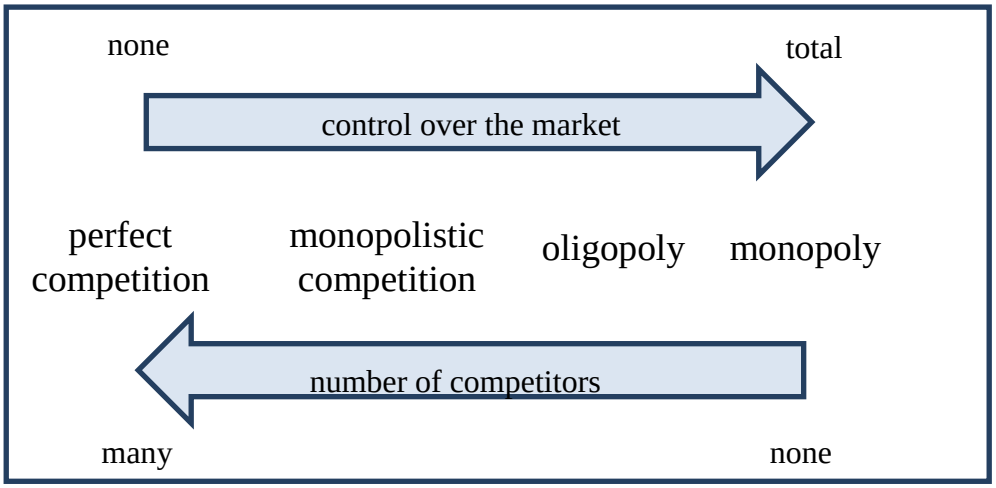


Figure 1 Types of competition on the market

4 AIRCRAFT MARKET DATA

The data used for general aviation aircraft market analysis come from the General Aviation Manufacturers Association GAMA, which is an international trade association representing more than 90 of the world´s leading manufacturers of general aviation airplanes and rotorcraft, engines, avionics, components, and related services.

4.1 General aviation aircraft market structure

Every year GAMA issues a statistical databook and industry outlook, which provide a priceless source of information. The 2016 edition contained aircraft shipment and billing information for 39 manufacturers of general aviation aircraft worldwide[3]. From this piece of information it is apparent that there are more aircraft manufacturers, although many might be too small and provide business outputs that are of little interest in the global scale.

It is also important to note that there are many different types of aircraft produced. The airplanes used for the general aviation purposes can be divided into three main categories: piston-powered aircraft, turboprops and business jets. Each of these types provide a different level of comfort and usability. While business jets are usually fitted in a luxurious way and ensure fast transport, for aerial works piston-powered aircraft are ideal with good manoeuvrability and capability of flight at relatively low speeds.

4.2 Performance of general aviation aircraft manufacturers

Figure 2 shows the performance of tracked general aviation aircraft manufacturers in the last 15 years. During this period the manufacturers delivered globally between 2000 and 4277 airplanes a year. The recession from December 2007 to June 2009 had a massive impact on the general aviation aircraft manufacturing industry. In 2010, however, the downward trend stopped and the number of aircraft sold increased again.

In the Figure 2 the estimated billings in millions of US dollars can also be seen. Relative to the major decrease in shipments, revenues have not declined nearly as much. The reason is the raise of unit price of business jets since 2008. General aviation aircraft manufacturers have raised their prices dramatically to make up for declining sales volumes. Clearly, manufacturers are aware that, at low levels of demand, a private aircraft is a very price inelastic type of product. Thus prices can be raised without demand falling nearly as much. Business jets make up the vast majority of sales revenues, accounting for 89% of global 2016 sales, piston-engine aircraft account for only 3% of worldwide revenues. Thus a more pronounced raise of prise for business jets had a clear impact on worldwide financial performance though the whole segment of general aviation aircraft market.

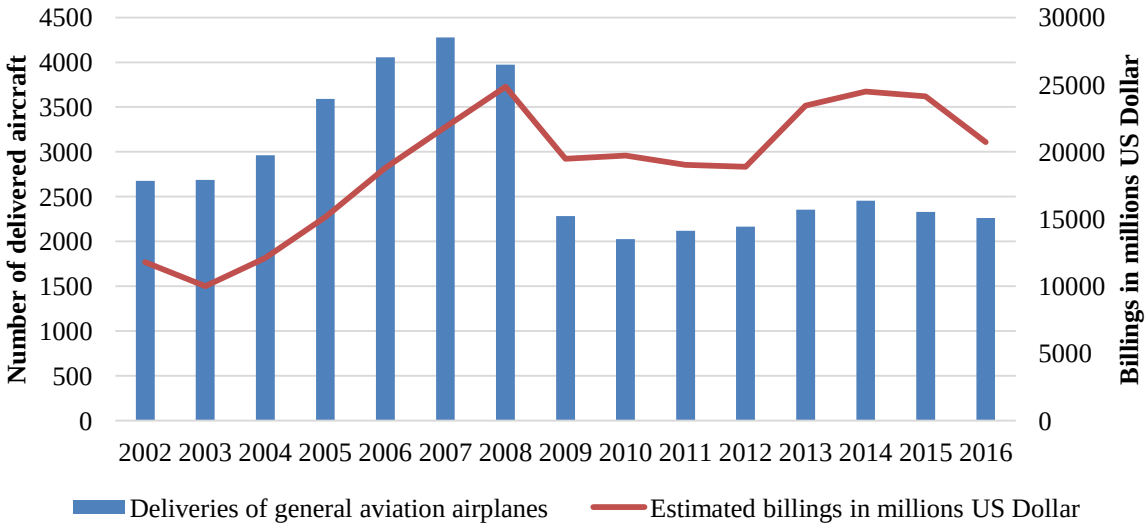


Figure 2 Overview of deliveries of general aviation airplanes and estimated billings in millions US Dollar in 2016

4.3 Emphasis on the private jet segment

Figure 3 depicts the Top 15 aircraft manufacturers or types, respectively, lined up considering the number of units sold in year 2015. The sales performance of Cessna and Beechcraft airplane series, both a product of the company Textron, are considered separately as these aircraft are a very distinctive product.

The data from Figure 3 become intriguing especially when put in context with data form Figure 4, in which the general aviation aircraft manufacturers are ranked by revenues. Other companies, namely the business jet manufacturers, are in the lead in this case. Gulfstream, ranking as 6th by units sold, has the highest revenue with total 2015 sales of $8,20 billion. In second place Bombardier has reached sales of $7,36 billion. When summing the revenues of both Cessna and Beechcraft series, the overall leader by units sold company Textron Aviation is in 3rd place with $2,88 billion. Dassault, a company not even in the top 10 by units sold, takes 4th place with 2015 sales of $2,17 billion followed by Brazil´s Embraer ($1,63 billion). In the Figure 4 names of the most well-known airplane manufacturers Boeing and Airbus can be seen. The revenues shown in Figure don´t include revenues from the sale of wide-body aircraft used in scheduled services, such as the A330 and B787.

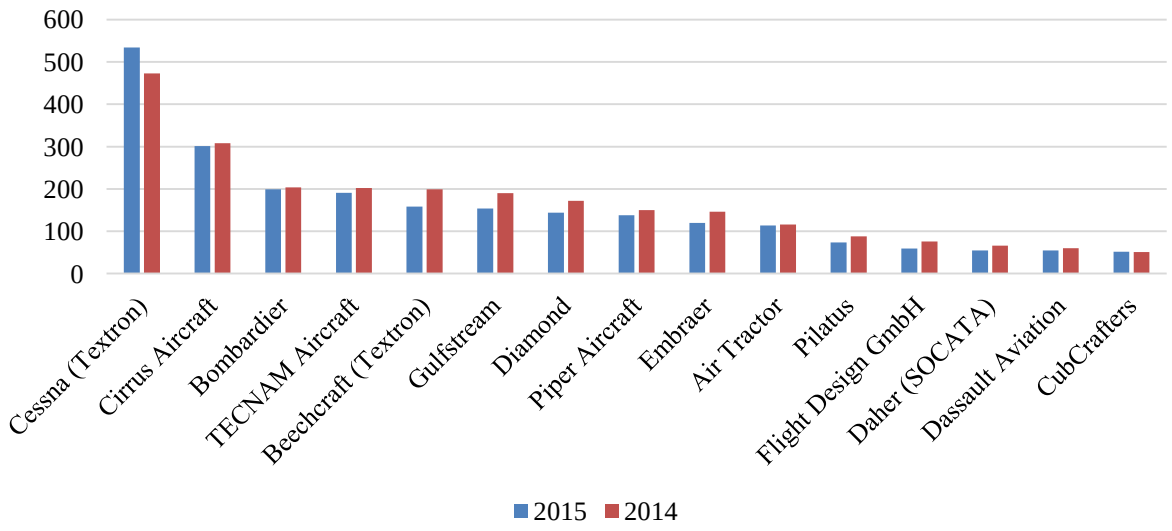


Figure 3 Top 15 general aviation aircraft manufacturers by number of produced airplanes

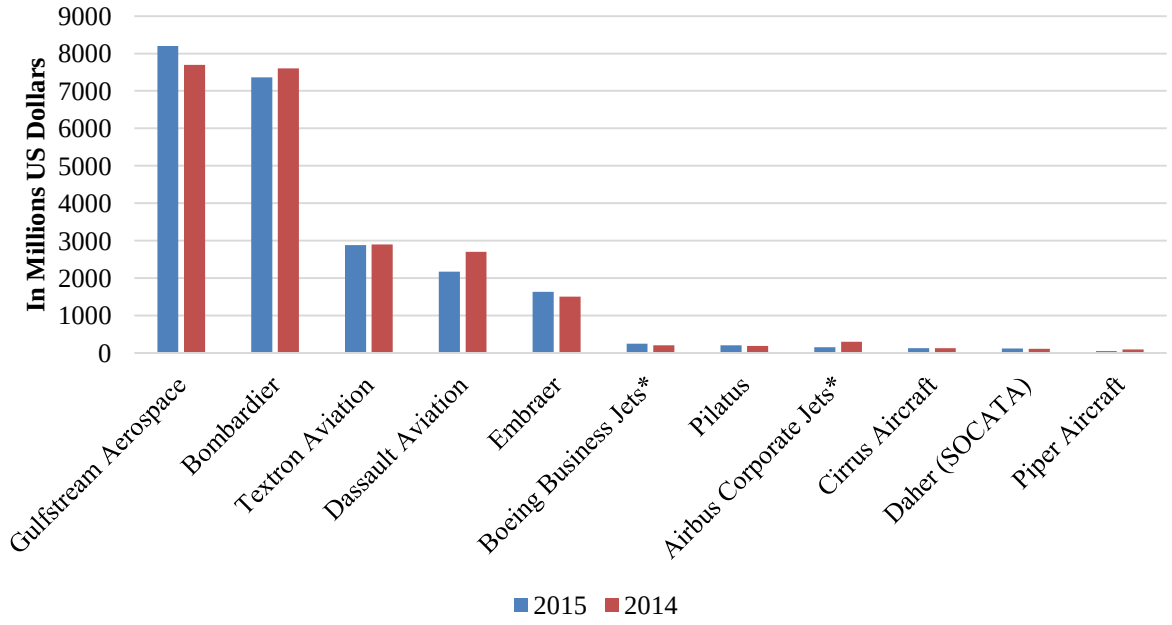


Figure 4 Top 10 general aviation aircraft manufacturers by revenues [4]. * Does not include revenues from the sale of wide-body aircraft such as the A330 and B787.

5 CONCLUSION

When looking at the number of aircraft manufacturers and types of aircraft available, it is obvious that the variety of different aircraft is great. Operators of general aviation can choose from several models and tailor their fleet of aircraft to the needs of the customers they serve. Because the range of different models is so wide, it is not possible to generalize and say that the airplane manufacturers are loosing control over market. Even here a more detailed segmentation is possible. For example there are fewer manufacturers of private jets and their products are being differentiated by their marketing, proposing a different level of luxury and brand recognition. Thus the change in the price might affect the buyer only slightly. In comparison to business jets there are more different models of piston and tubro-prop aircraft used for private and recreational flying. Customers in this segment might be more sensible on price change.

Concluding from the conducted analysis we can state that the market of general aviation aircraft could be characterized as a monopolistic competition, with certain segments shifting into oligopoly.

6 DISCUSSION

This paper presents an insight into the market of general aviation airplanes. While the market of wide-body aircraft is dominated by two players, the Boeing and Airbus, in general aviation usually smaller aircraft are used and the variety of their manufacturers is much more diverse. Also the aircraft themselves differ by their power plant and overall usability and way of utilisation. Based on the analysis of available data and general knowledge of types of market competition we can say that the market of general aviation aircraft could be characterized as a monopolistic competition.

Nevertheless, one way how to further explicate the research in this respect would be further segmentation of the market of general aviation airplanes. As indicated in the previous chapter, some sub-segment of general aviation aircraft could be characterized as oligopoly.

Also deriving from this paper, there is room for a deeper investigation into market relationships and the behaviour and interdependence of market participants. The price elasticity and consumer behaviour could also be looked into, as the aviation is subject to market fluctuations and economic cyclicality.

Sources

1. COLLINS, K. *Exploring Business*. London: Prentice Hall, 2007. 362 pages. ISBN 9780131403659
2. FERENC, J., FERENCOVÁ, J., KOŠČÁK, P. Evaluation of competitiveness of airports. In: *Acta Avionica*. Vol. 13, Issue 21 (2011), Pages 68-76. ISSN 1335-9479
3. GAMA, General Aviation Manufacturers Association, *2016 General Aviation Statistical Databook & 2017 Industry Outlook* [online]. Washington: GAMA, 2017 [cit. 2017-10-13]. Available at: <https://gama.aero/wp-content/uploads/2016-GAMA-Databook_forWeb.pdf>.
4. *General aviation aircraft data* [online]. [cit. 2017-11-11]. Available at: <http://www.fi-aeroweb.com/General-Aviation.html>.
5. IBSEN, A. Z. The politics of airplane production: The emergence of two technological frames in the competition between Boeing and Airbus. In: *Technology in Society*, Volume 31, Issue 4, November 2009 , Pages 342-349. ISSN 0160-791X
6. ROZENBERG, R., SZABO, S., ŠEBEŠČÁKOVÁ, I. Comparison of FSC and LCC and Their Market Share in Aviation. In: *International Review of Aerospace Engineering (IREASE)*. Vol. 7, no. 5 (2014), Pages 149-154. ISSN 1973-7459
7. TONQ, C. H., TONQ, L. Boeing vs. Airbus: Competing for the future. In: *Competitiveness Review: An International Business Journal*, Volume 13, Issue 2, February 2003 , Pages 28-33. ISSN 1059-5422

Contact

Ing. Dorota Liptakova
Technical University of Kosice, Faculty of Aeronautisc, Department of Air Transport Management, Rampova 7, 040 01 Kosice, Slovakia
Tel: +421 55 602 6197
Email: dorota.liptakova@tuke.sk

VEŘEJNÁ SPRÁVA

PUBLIC SERVICE

NUMBER OF PAPERS: 8



PUBLIC DIPLOMACY AND NATION BRANDS

Andrej Kona

Abstract
In traditional understanding public diplomacy means governmental communication directed at a foreign audience with the aim of achieving a change in the thinking and feeling of people. Nonetheless, public diplomacy may also focus on the domestic audience, namely in two ways: input from the country´s inhabitants for formulating foreign policy (engagement), and explaining the goals of foreign policy and diplomacy to the domestic audience (explanatory approach). The present paper deals with the connection between public diplomacy and the nation brand. The impact of diplomacy on the brand is currently increasing and it is necessary to think about how they influence one another and, with regard to the creation of both concepts, what variables should be focused on, what not to forget and what to avoid.
Keywords: *public diplomacy, brand, nation, power, organization*

1. DEFINING PUBLIC DIPLOMACY

The first definitions of public democracy were based on promotional and persuasional strategies, while they were closely related to one´s own interests and effective management. Public diplomacy is defined as direct communication with foreign nations with the aim of influencing their thinking and, eventually, their governments. As far as the content of public diplomacy is concerned, such activities are described which are directed at foreign countries in the area of information, education and culture, the aim of which is to influence foreign governments through exercising influence on their inhabitants.

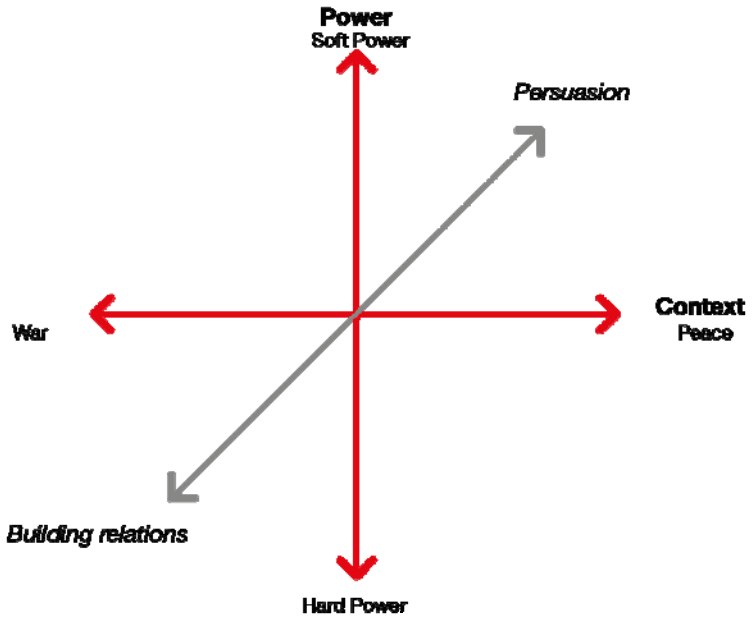
When analysing past and current definitions of public diplomacy, we can see various changes which may be divided into two groups:[1]

- Public diplomacy exercises influence on the public/inhabitants of the target nation in an effort to make them pressurize their own government with the goal of changing its foreign or state policy;
- Exercise influence on public opinion with the aim of creating a desired environment for foreign political goals and to support national interests which will lead to primary goals.
  International relations are paving the way not only for the position of power but also for the intention that without which power – soft, hard or smart – could become meaningless. The power model may thus help conceptualize public diplomacy.
- The first dimension of the model is the status in which communication takes place as well as relations (tension) between the communicating and the target country, with the result being peace or war.
- The second dimension includes the levels of communication goals from persuasion (one-directional) to building relations (bidirectional communication). Similarly to the European Union, several countries use symmetric public diplomacy, the aim of which is to create mutual understanding and dialogue. In symmetrical public diplomacy each party has an equal chance to influence political results that are mutually beneficial for all and each party is willing to adjust its policy, position or behaviour.

[1] Fan, Y., Branding the Nation: Towards a Better Understanding, Place Branding and Public Diplomacy, Volume 6, Issue 2, 2010, pp. 97-103, p. 100

- The last dimension is power, defined as the ability to exercise influence on results we want to achieve.

We may also add a fourth dimension, which is time, that has an impact on short-term, medium-term and long-term results.



Picture 1: Dimensions of public diplomacy
Source: author

The way how a government defines and what approach it assumes towards public democracy may have an impact on its practice. Contextualization of public democracy may be influenced by the history of the particular country, while the nation brand is rather a uniform concept. The goal of the UK´s public diplomacy is to inform and engage individuals and organisations abroad with the aim of enhancing awareness, influence and understanding of the UK in a manner which is in accordance with its government's medium- and long-term goals. German public democracy tries to explain and discuss Germany´s state and foreign policies with the aim of strengthening the country´s position. Those are two different ways of using public democracy.

2. PUBLIC DIPLOMACY AND THE NATION BRAND

While ´nation brand´ can be translated easily into a number of languages, for public diplomacy it may be a problem. Several ministries of foreign affairs are trying to find appropriate versions of such a term in their national languages which they may use in the case of their own diplomatic goals. In some cases, the English term is simply used or the concept is translated as cultural diplomacy or promotion. To cut a long story short, analysis of definitions of public diplomacy in the historical context have a clear shift and such processes may be observed from reaching behavioural goals to attitude/cognitive goals, from provision of information (monologue) to communication (dialogue), from persuading to building relations, and to managing and involving the public.[2]

[2] Nye, J. S., Soft Power: The Means to Success in World Politics, New York, Public Affairs, 2004, pp. 1-2.

Government involvement connects the concept of public diplomacy with the concept of the nation brand. Definitions of national branding are not related directly to the government but the government is designated as the initiator and coordinator of the national brand. However, there is an interesting trend that while the visibility and role of the government decreases in public democracy, giving more options to trustworthy players such as NGOs and other non-state entities, supporters of the nation brand are calling for higher involvement of the government in achieving coordination and a holistic approach when creating the nation brand.[3]

In most cases, nation branding is focused on a mass audience in the target country, while public diplomacy is focused on a well-defined audience, like in the case of the cultural or political elite, creators of public opinions and leaders, those who are interested in foreign news or policy.

Nation branding is more visible since it is based on visual and symbolic elements in order that the target audience may recognize which country is communicating a particular campaign, contrary to public diplomacy with its finer work relying more on behaviour than on symbols. Under certain circumstances, the nation brand is more transparent and reliable than public diplomacy.

	Public diplomacy	Nation brand
Target	- Promoting political interest	- Promoting (usually) economic interest
Context	- Talking politics, the intention and priorities may change when a government changes; - Identity control; - Driven by international relations and culture	- Deformalized, general accord among players and political parties (although in certain cases it is about politics); - Image control; - Driven by marketing and consumers
Focused on	- Public/parties involved which are active; - Citizens; - Focused on key geopolitical countries	- Media/consumers who are passive; - Consumers (image, products, places) - Applicable to all countries, more universal
Orientation	- Foreign public	- Both foreign and domestic audience. If not approved by the domestic audience, it is destined to fail
Role of the government	- Initiator as well as sender of messages → government has higher control over administration	- Government could be an initiator but rarely the sender → small to no control of government
Players	- Both state and non-state government players, government agencies, embassies, ministry of culture, ministry of foreign affairs, cultural institutions, NGOs, diasporas	- National tourist agencies, travel agencies, agencies promoting investments and export, chambers of commerce, supranational organizations which are multipliers
Strategies	- Building and maintaining relations; - Building trust; - Emphasis on content; - Decentralized approach in different target countries by using different	- Creating image; - Emphasis on visual and symbolic elements; - Centralized approach which is based on the essence of the brand (adapted to all) tailor-made global and

[3] Nye, J. S., The Future of Power, New York, Public Affairs, 2011, p. 7.

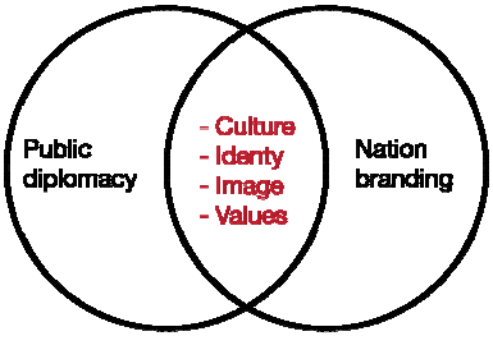
	strategies and activities adapted to the local audience; - Focus on positive and negative elements which may connect people and cultures	homogeneous public - Focus exclusively on positive and "tradable" elements of culture and of people
Tactics	- Exhibitions, international film festivals, exchange programmes, promotion of language education, networking, anniversaries, first nights, contributions of ministers of foreign affairs and other politicians in foreign diaries, important events	- Logo and slogan, commercials in the country on prominent international TV channels, sponsored and prepaid pages in important international magazines, e-marketing, web portals, brochures, pseudo events
Media	- Mass media is less important; their role is to present and interpret information. Social media is more important	- Relies mainly on mass media as its main channel. Media is passive; they usually have paid advertisements
Budget	- Sponsored by the government	- Public and private partnership
Time framework	- Constant, ongoing	- Ad hoc, controlled campaigns
Period	- Short-term, medium-term and long-term	- Usually long-term

Table 1: Differences between public diplomacy and nation brand
Source: Lewis, 2003, 27

A brand-oriented approach directed at public diplomacy has both advantages and disadvantages. The advantages include:

- Public diplomacy is more strategic;
- It makes strategic planning and coordination easier;
- Integrates communication directed at a foreign audience;
- Improves the communication skills and competencies of public diplomats which are often insufficient;
- Increases a nation's competitiveness in the globalized world;
- Creates other domestic and international coverage for the country as the branding initiative and campaigns are the subject of media coverage (as well as control);
- Visualise public opinion;
- Bring creativity and fresh air when addressing a foreign public;
- Since nation branding is focused on a wider audience than public diplomacy, it may increase the number of people whom the programme may address;
- Provide input and feedback for public diplomatic programmes though market research;
- Branding is oriented more on results, similar to financial and personal motivation, like in the case of public diplomats who are paid for achievements and who may prefer stability to risk.

Building and promoting national identity is connected to the goals of public diplomacy. Culture may be found in a common segment of both areas, particularly if public diplomacy includes also cultural diplomacy and relations.



Picture 2: Connection between nation branding and public diplomacy
Source: author

The institutionalization of public diplomacy and of the nation brand has a growing and interconnecting tendency. According to Olsen, institutionalization has three dimensions:

- Structuralization and routinization of behaviour;
- Interconnection of sources to values and global opinions;
- Standardization, homogenization and moderate forms of thinking and reasoning.

Professional managing authorities play an important role in this process, particularly the national ones. An international professional organization for public diplomacy does not yet exist but the time may come when all public diplomats are required to become accredited members of a professional organization which will participate in the creation of codes of ethics at the national or even international level.

3. CONCLUSION

Even in cases when decisions are being made on how to spend funds earmarked for assistance to other countries where companies will build their factories or branches, where film crews will go to shoot their films, talent or beauty contests, when deciding about in which country or city their next event will be held, from which country governments will choose their allies during times of international conflicts, such major decisions are made by the employees of states, cities or organizations who are still only human. They are simply consumers in their free time and they think as consumers also when making expert decisions and when they are influenced by ideas and prejudice. In certain cases a small bribe may help as well but the reputation of countries has a very high value when decisions are being made from among several options.

State authorities and public institutions play an important role in the process of building the national identity of a country. They participate in planning state promotional activities, implementing them and, last but not least, financing them. Each such organization has a different area of competence to which it pays attention. In spite of this, it is important that individual bodies do not act as independent units but that they cooperate and provide information to each other with regard to the fundamental issues of the country's promotion.

It is thus not possible to exclude public diplomacy from the creation of a nation brand, but it is necessary to find the connection between them.

Bibliography

1. Fan, Y., Branding the Nation: Towards a Better Understanding, Place Branding and Public Diplomacy, Volume 6, Issue 2, [online]. 2010. [2017-11-1]. Avalaible: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.426.9277&rep=rep1&type=pdf

2. Nye, J. S., Soft Power: The Means to Success in World Politics, New York, Public Affairs, 2004, p. 208. ISBN 978-1586483067
3. Nye, J. S., The Future of Power, New York, Public Affairs, 2011, p. 320. ISBN 978-1610390699

Contact

Mgr. Andrej Kóňa
Brand Institute, o.z.
Havelkova 30, 841 03 Bratislava
Slovenská republika
Tel: +421 911 090 211
email: andrej@kona-slovakia.eu
Univerzita sv. Cyrila a Metoda v Trnave
Fakulta masmediálnej komunikácia

COMPARISON OF HEALTH CARE FINANCING FOCUSED ON OBSTETRICS

Andrea Masařová, Marcela Basovníková

Abstract

The article is focused on funding systems in healthcare systems in the Czech Republic and the United States of America. The main objective of this article is to compare healthcare systems in the Czech Republic and the United States of America. The system of public health insurance in the Czech Republic will be created as a basic system and the market model of health care in the USA will be compared. The partial goal will be to analyse obstetrics in both countries and to compare their cost parts. Further objectives will be the analysis of salaries in the health sector, assessment of the advantages and weaknesses of the financing system in both countries, overall comparison of the health care system and recommendations for each health system.

Key words: *Health Financing System, Market Model, Bismarck Model, Obstetrics*

1 INTRODUCTION

1.1. General overview of healthcare in the Czech republic

Durdisová (2005) describes in more details the social model used also in the CR. This model is designated as the Bismarck model or health insurance model. Within this model, the public sector is complemented by the private sector. Therefore, it is financed mainly from the compulsory health insurance and is used e.g. in Slovakia, France, Belgium, Holland, Luxembourg and Austria.

This model is the largest representative of a solidarity system where each person draws according to its needs and pays according to its possibilities. The quality and scope of health care is determined by the physician only. The deficiency of this system is, for example, that a bad doctor can be remunerated for error conduct in the same way as a good doctor. (Lameire, 1999, Wallace, 2013).

The separation of the health and illness insurance system is also an important element characteristic for the Czech health care. In the CR, health insurance is used only to finance health care. The main sources of financing health care in the CR included public health insurance, which makes up the biggest part of the total expenditure (over 75%), in addition private resources representing approximately 16% of the resources and finally public budgets whose difference varies between 5 up to 9% of total expenditure (ÚZIS ČR, 2014).

As indicated by Šatera (2010), the reimbursement mechanism is an extensive and complicated matter in the health care issue. To give you some perspective, we will state only the mostly used reimbursement types. The first one is per capita payment which is intended mainly for general practitioners for children, adolescents and adults. The amount of this payment reflects the number of patients, age structure and the scope of the physician's office hours. The second type is pay-per-day system which is used in the institutional care and in the hospitalisation of a patient at hospital. The other reimbursement type is pay per medical procedure where a single item of health care is always paid. The last type being introduced is the DRG reimbursement (or payment for diagnosis). This type has been tested in the CR since 1997. Currently, it is implemented by some hospitals but also in connection with a flat-rate payment. At present, if functions rather as a method to compare the effectiveness of hospitals.

The Czech health care is generally evaluated as "health care achieving respectable average results with the tendency to improve"which indicates a relatively good set-up of the health care system, in which there is a room for improvement. The strong points of the Czech health care sector include especially good availability of health care or the quality of care for children and adolescents.
The problem within the Czech health care system also consists in low financial remuneration of health care staff or frequent changes of rules related to the disunited concept of health care sector throughout the political spectrum (Janečková a Hnilicová, 2009).

1.2. A general overview of US health care

The market model of health care can be encountered in the US or Switzerland (only by 1996). As Šatera (2010) points out the American health care is based on a concept of liberalism and has never accepted the social solidarity model. The issues with the lack of the role of the state in health care are often addressed in this country. G.F.Roosevelt whose thoughts and compulsory insurance system have never been successful, has made a great effort in this matter.
The market model in the US is typically featured by the following:

- Health insurance is not compulsory, the state does not guarantee health care but the patient is supposed to be the one who is fully responsible for his/her health and illnesses treatment,
- Health care is understood as goods that are chosen by the patients according to the quality and price,
- There is no comprehensive unified health policy,
- Health care is paid: by direct payment from the patient or by the reimbursement of a commercial insurance company where the patient is insured,
- There is also so-called employee insurance (perceived as a work benefit),
- The US give for health care the most of the OECD states- 15 %-18 % in relation to GDP,
- The predominant form of reimbursement is payment for medical procedures – of which the physicians decide and the motivation is clear - the more procedures the more money (even unnecessary procedures),
- Is the only country where almost 50 million of people (15 %) do not have a health insurance, whereas a draft of social insurance combined with social insurance was prepared already in 1915.

As Barták (2010) points out, a larger part of economically active residents of the US (around 2/3) has a private insurance, 70 - 80 % of the policy holders are insured through employees' group of a certain company, directly through the employer. As far as individual health insurance is concerned, i.e. agreed upon directly between the health insurance company and the client, this one is owned only over 12 % of residents. The fact that a considerable part of the population in the US does not have, on a long-term basis, any health insurance, remains to be the biggest problem of the American health care.
The main causes of the expenditure growth in health care are mainly health care facilities being equipped by the state-of-the-art technology, the lack of regulations and price control, the number of providers and the lack of state power. In the US, there is so-called defensive medicine where the patients are often provided with unnecessary treatment in order to prevent legal disputes between the patient and the provider that are widespread here and also due to reimbursement of the care through the payments for medical procedures.
There is an effort to provide health care for certain groups in the US through the Medicare and Medicade programmes. It is the provision of a basic health care for people over 65 and for the poor people. The Medicare programme described in more detail by Obama (2016), Oberlander (2012) is governed on federal level and also financed mainly from the federal taxes. It

means that the conditions and the scope of coverage of health care are equal in all the states of the Union. Medicare is focused mainly on emergency treatment. However, it does not cover long-term treatment and non-emergency treatment services (e.g. preventive check-ups).
The Medicaid programme includes urgent emergency as well as long-term treatment and some preventive services (vaccination). It is also financed from federal taxes as well as from the taxes of the Union's individual states. The criterion of the patients included in the program is that their income is below the subsistence level. (Obama, 2016)

1.3. Childbirths in the US

A healthy newborn is examined by the medical staff after giving birth. However, only the chosen paediatrician has the competency to release the child from the hospital. In the morning, the paediatricians visit all new born children they have in care and examine them. Subsequently, they decide whether they will be released from the hospital or they recommend another method of treatment. As women choose the paediatrician, they also choose their obstetrician with its obstetric practise. There is a lack of obstetricians in the US since this discipline is connected with potential court processes.
Since there is a lack of physicians, they are not able to provide a natural birth for the woman in labour. For this reason, the physicians plan birth in advance and they induce birth by the Pitocine infusion. Only midwives are willing to assist at a natural birth, but they have to inform the physician at a distance. A natural birth is considered to be an alternative or a above-standard service while an induced birth is considered to be a standard. Obstetric centres offering the assistance of physicians are ideal for natural births. Such centres are considered to be above standard and often are not covered by health insurance. In the US, the women are hospitalized 1 day after giving birth. If complications occur, the stay can be extended up to 3 days (Britské listy, 2011).
An enormous disadvantage for maternity and the future parents is the fact that the costs associated with pre-birth examination, the birth and the care for mother and child in confinement is not a part of health insurances. It is possible to get a supplementary insurance from one's employer, in the case of individual supplementary insurance it is a rather complex problem. The first problem is that the offer is designated only for a part of maternity products and they are quite expensive, the other problem is the necessity to pay the insurance one month before the planned pregnancy and the third- the individual insurance applies only to 60% of the care costs. It means that the birth of a descendant in the US is a very significant expense for the family.

1.4. Childbirths in the Czech republic

Women also choose a paediatrician for their child. The paediatrician should be contacted before giving birth and the first visit should be agreed on. They have, however, also the possibility to choose a maternity hospital which they choose based on hospital grade assessment criteria (Pařízek, 2009). Most of other information concerning the birth and the subsequent postnatal care they learn in antenatal clinics. The women who are going to give birth find there also all the forms that are to be filled in before and after giving birth. In the CR, the natural birth is still more frequent, but induced births start occurring more. The woman is released from the maternity hospital at the earliest 3 days and at the latest 5 days. In the occurrence of possible complications, it is 5 through 7 days (Porodnice.cz, 2014).
In the CR, the health insurance is, of course, compulsory, where all stated expenses of maternity care are reimbursed by the insurance company, however, in the standard. The above-standard products can be also used, but these are paid by the patient outside of his/her insurance. With this choice, childbirth even in the CR can be expensive. The advantage is that the guarantee of the maternity care for all future families in the set standard.

2 METHODS

The main aim of the article will be to compare health care systems in the Czech Republic and the United States of America. The system of public health insurance in the Czech Republic will be established as a basic system and the market model of health care in the USA will be comparative. The partial aim is to analyse obstetrics in both countries and to compare their cost parts. Other sub-targets will be the analysis of salaries in the health sector, the appreciation of the advantages and disadvantages of the funding system in both countries, a comprehensive comparison of the health care system, and recommendations for each health system.
Within the Czech Republic, the costs of Uherskohradišťské nem-oknice, a joint-stock company, will be analysed for comparison. The Uherskohradišťská hospital was chosen because it offers a great deal of extra care for its clients. The comparison will be made with the Faculty Hospital in Brno, the founder of which is the Ministry of Finance of the Czech Republic. The costs associated with standard and above-standard performance during pregnancy, childbirth and postnatal care in both the Czech Republic and the United States will be shared. Data for American healthcare will be obtained from the Kaiser Health News.
For a more comprehensive look at obstetrics, wages analysis will be carried out in the Czech Republic as well as in the United States of America and the moribundness. Mortality is the number of dead infants per 1,000 births (ie live and stillbirths).

3 RESULTS

The following part of the article will describe the obstetrics mechanism in both countries with a focus on cost items.

3.1. The Czech republic

In order for health insurance companies to pay the births, the women must give birth at hospitals. Because of the births, the hospitals have a certain and stable supply of money without which some smaller institutions would be in an existential threat. If a woman wants to give birth at home, the insurance company won't reimburse anything to her. If a woman plans a birth at home, she will pay 5 through 7 thousand crowns for it. This price includes 3 consultations before and after giving birth. This way of birth must be paid by the woman from her own money (General Health Insurance Company, 2015).
From the information provided by the General Health Insurance Company spokesman, the classical birth without complications costs CZK 10, 000 to CZK 14, 000. But to these prices we have to add also the prenatal and postnatal care, above-standard services as well as hospitalisation and care for the newborns. When everything is added up, the final price may be up to hundreds of thousands. The hospital obtains CZK 30,000 to 43, 000 for the Caesarean section and up to 150,000 for the care of a premature baby. Artificial fertilization, amounting almost to CZK 200,000 are a high item for the insurance companies. The revenues from births can be increased by different above standard services. The neonatology department can earn for 3 days (the shortest time of hospitalization) from CZK 300 to CZK 12, 000. But it is only a fraction from total hospital incomes (Aktuálně.cz, 2013).
The Table 1 shows the values of individual medical procedures. These are amounts reimbursed to hospitals by the General Health Insurance Company in 2012. Unfortunately, we have not managed to obtain a more up to date data, but the amounts are expected to be higher. This is due to more expensive health care. More expensive devices and modern technologies are used. The reimbursed birth values are very interesting, the amount is CZK 546,606 million for natural births and CZK 479,397 million for Caesarean sections. Obviously, these are not negligible amounts.

Table 1: How much does a childbirth cost? (2012 in CZK)

Medical procedures	**General Health Insurance Company**
Childbirth without complications	CZK 13, 582
Childbirth with complications	CZK 15, 284
Total reimbursed childbirths in 2011	39, 002 (CZK 546,606 million)
Caesarean childbirth without complication	CZK 32,193
Caesarean childbirth with complications	CZK 40, 557 – 42, 964
Total reimbursed Caesarean childbirths	13, 865 (CZK 479,397 million)
Hospitalization of a healthy newborn	CZK 8, 304
Hospitalization of a newborn with complications	CZK 10, 041 to CZK 25, 024
Premature baby care (average price)	CZK 156, 381
Artificial fertilization	CZK 213, 668
Pre-birth examination, total	CZK 3, 740
Lab examination, total	CZK 2, 580

Source: own processing using data from Všeobecná zdravotní pojišťovna

The head physician of the gynaecological and obstetric department at the Jihlava hospital pointed out that the values from insurance companies cannot be taken exactly as they are, since it is possible to always negotiate with the health insurance company.

Specific possibilities and above- standard services

The data are drawn from the Uherské Hradiště hospital, offering countless above-standard services to its patients. In particular, these are above-standard rooms at the gynaecological department for CZK 500/day, then the confinement department rooms for CZK 300/day and the last ones are rooms with the possibility of another person's stay (the farther of the child) for CZK 800/day. The mothers have the possibility to use pre-birth courses that have the value of CZK 1, 500. The other services are stated in Table 2, which shows that epidural anaesthesia, which costs CZK 2,000, is the most expensive item – CZK 2, 000 (Uherskohradišťská nemocnice, a. s., 2017).

Table 2: Above-standard services in the Uherské Hradiště hospital

Service name	Amount in CZK
Photo of the fetus	CZK 100
Video of the fetus	CTK 400
Determination of fetus gender	CZK 100
The presence of the father at childbirth	CZK 0[1]
The 1st trimester combined test	CZK 1,400
Epidural anaesthesia at childbirth	CZK 2,000
Lactation counselling (home environment)	CZK 350

Source: own processing using data from Všeobecná zdravotní pojišťovna

In the Czech Republic, according to Czech Television, the cost of 3D ultrasound is approximately CZK 1,100, pre-maternity rates are worth an average of CZK 1,500 for the parent and CZK 2,100 for prenatal exercise. The price of the escort in the room is about 800 CZK, for the above-standard room it will pay approximately 1 500 CZK / day. Epidural anesthesia costs approximately CZK 1,200. The presence of a father at childbirth, although the Constitu-

[1] The fee for the presence of fathers at childbirth was abolished by the Constitutional Court in all hospitals in 2016. In 2015 the fee was 400 CZK.

tional Court ruled that the hospitals can not choose for it, but they can charge the costs associated with it. In practice, it is so common for a father to pay, for example, for renting a mask and a protective jacket. But these fees should not be reflective, which gives hospitals a free hand.

3.2. USA

In the US, the hospitals have the possibility to determine own price for health care. Since, in terms of hospitalization, childbirth is considered a less complicated issue, it also results in lower incomes. For this reason, the physicians sometimes unnecessarily recommend blood tests and scans that are very costly. The hospitals have the possibility to obtain a higher amount of money and achieve higher profits.

According to New York Times, the obstetricians justify this procedure by the argument that they don't want to neglect any risks. The US hospitals also do not have the obligation to publish their fees unless ordered by the state or by the district. The hospital fees do not have to be always those that are paid since the insurance companies have negotiated price agreements. If the treated person is not insured, there is a possibility to talk with the hospital and to negotiate about the prices. In this way, a much lower account than the one which had been determined can be achieved. Some hospitals start offering also comprehensive maternity packages. These packages enable faster billing since they include all services provided. If prices would be set individually for each service, it would demand more time for work (Nerdwallet, 2014).

This all indicates that giving birth to a child in the US is not a cheap matter. Vaginal births cost, on average, $ 2, 600(CZK 61, 968) without complications. We must add to that prenatal and after-birth care which is estimated to be ,on average, $ 8, 802 (CZK 209, 739). According to the e Agency for Healthcare Research, 7 of 10 births are vaginal births, the rest are Caesarean sections. The Caesarean section price is $ 4, 500 (CZK 107,253) without complications. The most expensive item is vaginal birth with complication, the price of which is around $ 6, 900 (CZK 164, 464), which is almost 2,5 times the cost of classical birth. The prices for births are not based not only on the procedures but also on the mother's health condition. If complications can be increased due to her health conditions, also the costs may be higher. For example, a normal vaginal birth of a woman with diabetes increases the amount up to 55 percentage more ($ 5,900= CZK 140, 620). Another factor in the price growth is a possible premature birth which occurs in 1 from 8 pregnant women. A prematurely born child with a low birth weight is almost 11 times more expensive than a healthy newborn. The health care costs of a premature child are from $ 24, 000 (CZK 572, 016). These costs depend on in which week the child is born and the complications it has (KHN, 2015).

Specific possibilities and above- standard services

Another source is recent research of the University of California in San Francisco finding that the average birth costs range between $ 3,296 to $ 37,227 (CZK 78, 557 to CZK 887,268). Private as well public hospitals were included into this study. As can be seen, the price of birth can rise to astronomical figures in the US. The studies show also different values, this is caused by the fact that some amounts do not include payments for specialized obstetricians, midwives or anesthetises who have their services paid separately. The patients also cover prenatal care and courses themselves.

The other payments include:

- Prenatal care: $ 0- $ 2000, (CZK 47, 668)
- Prenatal vitamin: $ 15 points, 30 day delivery,
- Ultrasound: $ 25 (CZK 596),
- Other hospital costs: $ 0- $ 15,000 (CZK 0- 357, 510).

The other hospital costs include extra services. They are known as above-standard services (single- bed rooms, tablets, etc.) (WebMd, 2013).

3.3. Wages in health care

In 2013, the average monthly salary in health care amounted to CZK 30, 174. The average physicians' salary amounted to CZK 60, 635. The average monthly salary of nurses and midwives amounted to CZK 28. 706. The total average medical facilities staff salary amounted to CZK 25, 314. The average monthly physicians' salary amounted to CZK 54, 863. The average monthly salary of nurses and midwives amounted to CZK 23, 647 (ÚZIS, 2014).
In the US, the medical staff salaries range from $ 27 to $ 80 per hour. Nurses get the lowest hourly rate, i.e., $ 27, however this amount is not final, and it can be increased up to $ 45 per hour. The hourly wages for nurses depend on what responsibility the nurses have, in which department they work and what kind of education they have. The physicians' hourly wages start at $ 55, rising gradually based on the practise and specialization. The pharmaceutical workers who achieve up to $ 80 per hour are the remunerated the best (Burea of Labor Statistics, 2016). The average annual salary in heath care ranges around $64, 758. Thus, the monthly salary amounts, on average, to $ 5, 396 and if converted to CZK to 128, 602 (PayScala, 2016).

3.4. Still birth rate

If we look at the still birth rate in comparative countries, we find a big difference. We consider it to be one of the important health care indicators. Still birth rate expresses the number of still births per thousand births (i.e. both live born and still born), this number amounted to 3.5% in the CR in 2012. As reported in "National Vital Statistics", the still birth rate for 2012 in the US was much higher – 5.98 ‰. We can see a big difference in the pregnant care in the CR and the US, it may be caused by the different birth method but it can be affected also by the births of national minorities who don't have enough funds for the obstetric care (National Vital Statistic Reports, 2015).

4 DISCUSION

In the US, the patients consult their diagnosis especially with their attending physician who controls the entire course of treatment as well as birth. He is the one who decides when the woman is allowed to go home after giving birth. Personal physician also visits his/her patients at hospital. The obstetrician and midwives are presented only during the birth. Only, if there are complications, a specialist comes to the patient. While in the Czech Republic, the woman chooses the maternal hospital as well as her obstetrician or midwife who take care of her not only during the birth but also before and after the birth.
Since obstetrics is a discipline which is associated with possible litigations in the US, there is a lack of obstetricians. For this reason, the birth are planned for a certain day and subsequently induced by Pitocine. For them it is most suitable to handle all births within one day. In the Czech Republic, the tradition of natural births has been kept so far. Of course, there are births that are planned in advance; however, natural births still prevail. In the US, natural birth is considered to be a above standard service for which the woman giving birth must pay.
Another specific is the hospitalization time, which is, in the US, only 1 day after giving birth without complications, with complications up to 3 days. While in the CR, the minimum hospitalisation time after giving birth without complications is 3 day. Women having complications are hospitalized from 5 to 7 days. There is no difference in the fact that the women must arrange a paediatrician for their child in advance. There is a big difference in financing health care. While in the CR, the women have the treatment paid from the public health insurance, in the US, they have only a part paid from the private insurance and they pay the remaining part

from own money. From the above data, it is obvious that these are not small amounts. The childbirths in the US are several times more expensive than in the CR. In the CR, the woman pays only extra services and the above-standard.
The information related to the salaries in healthcare indicates that the salaries in the US are several times higher than the salaries in the Czech Republic. Underestimation of the medical staff has been a long-standing problem in the CR. This could be partly solved by simplifying the reimbursement mechanism.
Since the health care system in the CR has the spirit of solidarity, it does not achieve such revenues as in the US. For a longer time, there have been considerations to decrease the products that are paid by health insurance companies. These products would be included to the above-standard services which would cause a higher supply of finances to health care. For example, within birth care, the health insurance company would not reimburse the natural birth without complications itself, but it would reimburse also other prenatal and postnatal care. From the money saved, the insurance company could increase the imbursement for the care provided. On the other hand, the hospitals could invest the money obtained from the patients to modern technologies or science and research.

5 CONCLUSION

As one of possibilities of the reform in the US we propose to introduce also the reimbursement of care during birth and maternity to the commercial insurance. Currently, this care is not covered from the so-called employer insurance. It represents a great expense for the parents and they prefer to plan a child in advance. Therefore, they decide also on the basis of the financial situation.
To use legal standards to regulate the protection of obstetricians against possible litigation. It is because the parents often sue obstetricians for having neglected the care of mother and child. This measure would increase the number of obstetricians and midwives. That would lead to a more quality care and there would be a bigger orientation on natural (vaginal) births. Also the number of insignificant procedures performed by the physician in the patient would be decreased and that would lead to reduction of the parents' expenses of birth and maternity.
Creating a programme for the Czech citizens which would relate to a healthy lifestyle. It would be a tool to prevent a number of illnesses that cause complications also in births. Also the illnesses resulting from unhealthy life style would be limited. |These are, for example diabetes or heart diseases. This prevention instrument has been spread and used in the US.
In Czech obstetrics, we would propose to change the hospitalisation time after natural birth to 1 day. This measure will decrease the hospitalization costs and the patient care costs. The patient will faster come back to her home environment and will be calmer. Mothers like taking care of their children without being observed by someone all the time whether they do it right.
Simplification of the reimbursement mechanism. This would result in decrease of administrative cost and the there would be more clarity in the reimbursement system.

Acknowledgment

This article is a partial outcome of the internal grant project IGA FBE MENDELU nr. PEF_DP_2017012 „Ekonomická efektivnost státních zásahů do vybraných zdravotnických zařízení na Slovensku". (Economic effectiveness of state interventions into selected health care facilities in Slovakia)

Sources

1. AKTUÁLNĚ. CZ. *The state wants to have a parent in the hospital, playing for money.* [online]. 2013. [cit. 2017-11-30]. Available on: http://zpravy.aktualne.cz/

domaci/stat-chce-mit-rodicky-v-nemocnicich-hraje-se-o-penize/r~ad4471bc21ac11e38466002590604f2e/
2. BARTÁK, M. *Health Economics*. 1.vyd. Praha: Wolters Kluwer ČR, 2010. 224s. ISBN 978-80-7357-503-8.
3. BRITSKÉ LISTY. *US Health Care System - Jana Bradley's personal experience.* [online]. 2011. [cit. 2017-11-05]. Available on: http://blisty.cz/art/60797.html
4. BUREAU OF LABOR STATISTICS. *Occupational Employment and Wages – Medical and Health Services Managers.* [online]. 2015. [cit. 2017-11-28]. Available on: http://www.bls.gov/oes/current/oes119111.html
5. ČESKÁ TELEVIZE. *Respect to birth.* [online]. 2016. [cit. 2017-12-05]. Available on:http://www.ceskatelevize.cz/ivysilani/11412378947-90-ct24/216411058130520/obsah/472796-respekt-k-porodu-naklady-na-tehotenstvi
6. DURDISOVÁ, J. E*conomy of health. Praha: Oeconomica*, 2005. 228 s. ISBN 80-245-0998-9.
7. *Economic information in healthcare* [online].ÚZIS [cit. 2017-11-29]. ISSN 1211-6467,.Available on: http://www.uzis.cz/katalog/zdravotnicka-statistika/ekonomicke-informace-ve-zdravotnictvi
8. FAKULTNÍ NEMOCNICE BRNO. CENÍK č. 17/2017 – 09.5. [online].ÚZIS [cit. 2017-12-05]. ISSN 1211-6467, Available on: https://www.fnbrno.cz/nemocnice-bohunice/gynekologicko-porodnicka-klinika/placene-sluzby/k1447
9. KHN. How Much Does It Cost To Have A Baby? [online]. 2015. [cit. 2017-12-05]. Available on: http://khn.org/news/how-much-does-it-cost-to-have-a-baby-hospital-study-finds-huge-price-range/
10. JANEČKOVÁ, H; HNILICOVÁ, H. *Introduction to Public Health*. 1 vyd. Praha: Portál, 2009. 296 s. ISBN 978-80-7367-592-9
11. Lameire, N., Joffe, P., & Wiedemann, M. (1999). Healthcare systems—an international review: an overview. *Nephrology Dialysis Transplantation*, 14(suppl_6), 3-9.
12. National Vital Statistics Reports. [online]. 2015.[cit. 2017-11-30]. Available on: http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_09.pdf
13. NERDWALLET. *How Much Does it Cost to Have a Baby.* [online]. 2014. [cit. 2017-12-05]. Available on: https://www.nerdwallet.com/blog/health/medical-costs/how-much-does-it-cost-to-have-a-baby/
14. OBAMA, B. (2016). United States health care reform: progress to date and next steps. *Jama*, *316*(5), 525-532.
15. OBERLANDER, J. (2012). The Future Of Obamacare. *New England Journal Of Medicine*, 367(23), 2165-2167.
16. PAŘÍZEK, A. *Book of Pregnancy and Child: [Czech Guide to Pregnancy, Childbirth, Purses - Up to Two Years of Child]*.4. vyd. Praha: Galén, 2009. ISBN 978-80-7262-653-3.
17. PayScala. *Healthcare Administrator Salary – United States* [online]. 2016. [cit. 2017-12-28].Available on: http://www.payscale.com/research/US/Job=Healthcare_Administrator/Salary
18. PORODNICE.CZ. *What to do in pregnancy.* [online]. 2014. [cit. 2017-12-05]. Available on: http://www.porodnice.cz/tehotenstvi-a-z/co-je-nutne-jeste-zaridit-v-tehotenstvi
19. ŠATERA, K. *Health insurance and economics*, 1. vydání. Zlín: Univerzita Tomáše Bati ve Zlíně, 2010. 111s. ISBN 978-80-7318-971-6
20. UHERSKOHRADIŠŤSKÁ NEMOCNICE, A. S. P*rice list of above-standard services.* [online]. 2017. [cit. 2017-12-05]. Available on: http://www.nemuh.cz/doc/

porodnicko-gynekologicke-oddeleni/cenik-nadstandardnich-sluzeb-porodnicko-gynekologickeho-oddeleni
21. ÚZIS ČR. *Health yearbook of the Czech Republic 2013*[online]. 2014 [cit. 2017-12-03]. Available on: http://www.uzis.cz/publikace/zdravotnicka-rocenka-ceske-republiky-2013.
22. VZP. Home births. [online]. 2015. [cit. 2017-12-03]. Available on: https://www.vzp.cz/tiskove-centrum/otazky-tydne/porod-doma
23. WALLACE, L. S. (2013). A view of health care around the world. The Annals of Family Medicine, 11(1), 84-84.
24. WebMD. *What Is Costs to Have a Baby* [online]. 2013. [cit. 2017-12-01]. Available on: http://www.webmd.com/baby/features/cost-of-having-a-baby?page=3

Contact

Ing. Andrea Masařová
Mendelova univerzita v Brně
Zemědělská 1, 613 00 Brno
Tel: 733 723 752
email: andrea.masarova@mendelu.cz

THE ISSUE OF UNEMPLOYMENT IN THE CONTEXT OF SOCIAL COUNSELLING AND PSYCHOLOGICAL COUNSELLING OF THE PRESENT

Mominka Šovčíková

Abstract

The paper focuses on the social counselling and the psychological counselling. The author draws attention to the need for social counselling and psychological counselling on the target group of the unemployed. Increasing unemployment, its changing tendencies and associated social and psychological consequences naturally lead to the need to strengthen active labour market measures or to implement reintegration initiatives for the unemployed into the labour market. The prospect of using the social and psychological counselling in practice also illustrates the current social phenomenon of social-pathological phenomena related to unemployment.

Key words: *unemployment, psychological counselling, social counselling*

1. INTRODUCTION

Regardless of the actual values and the unemployment rate, we can say that the unemployment is one of the most current problems of society. The practical solution is assistance from counselling systems of social counselling and psychological counselling. As guidance as such has a long-standing tradition especially in psychological practice, we believe that processing the dissertation work on social and psychological counselling for the same clientele of unemployed can bring enrichment within the knowledge of social-counselling practice.

2. UNEMPLOYMENT AS A DETERMINANT OF THE COUNSELLING SYSTEMS' NEEDS

In an effort to outline the current state and the current need for social and psychological counselling for the unemployed, it is necessary to realize that it is strongly related to the current state of unemployment. The sharp rise in unemployment, with the outbreak of associated social and psychological consequences, can already be included in the economic crisis in the labour market. Unemployment at that time grew in a geometric order, and disproportion in the labour market deepened. At present, the tendency to permanently increase the unemployment rate is falling, but does not directly reduce the need for engagement of helping professions. This results from the year-on-year decline in the registered unemployment rate (see Table 1) and the instruments of active labour market measures in support of employability.

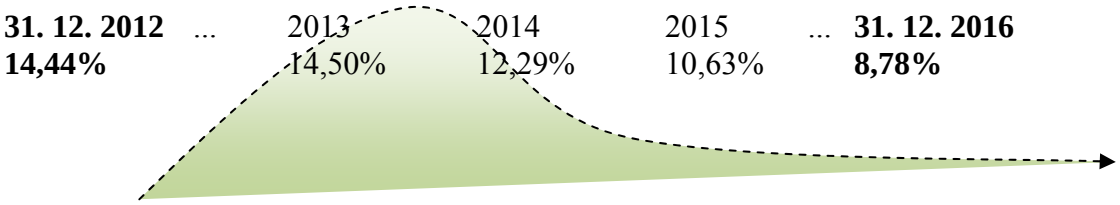
Table 1: Registered unemployment rate in 2012 - 2016

State as of December 31	Registered unemployment rate in%	Registered unemployment rate, calculated from the total number of job seekers in%
2012	14, 44 %	14,76 %
2013	14, 50 %	15, 96 %
2014	12, 29 %	13, 85 %
2015	10, 63%	12,40 %

2016	8,78%	10,24%
year 2017 (July 2017)	7,91%	6,70%

Source: Custom Processing by Statistics www.upsvar.sk

Chart 1: Evolution of unemployment rate compared in 2012 - 2016



Source: www.upsvar.sk

2.1 Initiatives for the integration of the unemployed into the labor market

In the context of the long-term unemployment solution recorded in total unemployment statistics, the "Action Plan to Enhance the Integration of Long-Term Unemployed on the Labour Market in the Slovak Republic" was adopted within the framework of the Europe 2020 target indicators and the National Reform Program of the Slovak Republic 2016. The primary goal of the action plan (www.employment.gov.sk) is "to design and implement a comprehensive approach based on in-depth individual assessment and appropriate counselling for the long-term unemployed", "directly related to improving their employability prospects, removing employment barriers and assessing previous job search efforts, also taking into account other aspects of improving the quality of their work life."The change factor was the realization that the long-term unemployed is "often at the edge of absolute exclusion from the society due to the loss of working habits." In the context of providing social and psychological counselling, we present planned and implemented initiatives for unemployment support.

Table 2: Proposed and implemented initiatives to integrate the unemployed into the labour market

NAME OF THE INITIATIVE	DESCRIPTION OF THE INITIATIVE	TARGET GROUP	TIMETABLE OF FULLFILLMENT
Introduction of an intensive and individual approach	- individual assessment of the unemployed (job seekers), - creating a detailed profile to provide adequate services and measures	- long-term unemployed according to the law of the National Council of the Slovak Republic no. 5/2004 on employment services	2016 - 2020
Provision of a targeted professional psycho-social counselling	- intensification of the provided professional counselling - Increase personnel capacities, the adoption of social counsellors and counselling psychologists	- long-term unemployed according to the law of the National Council of the Slovak Republic no. 5/2004 on employment services	2016 - 2020

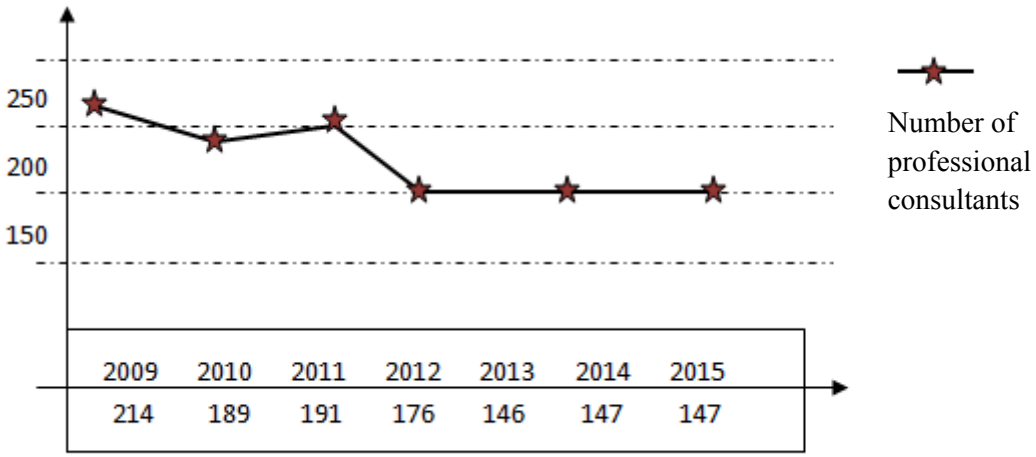
	2 priorities: - Support to individualized counselling - Balance of competencies		
Social and psychological counselling for long-term unemployed	- focus on removing barriers to employment (debts, housing issues, etc.) - mitigating the impact of unemployment - cooperating with the Legal Aid Centre	- disadvantaged persons on the labour market (without regular paid employment) - long-term unemployed	2016 - 2019

Source: Custom Processing by www.employment.gov.sk

From the perspective of addressing unemployment, we can consider the year 2015 already to be a breakthrough as "the authorities in the beginning of 2015 have undergone a new organizational change in which a new service unit for the citizen has been created" (Evaluation of the Application of Active Labour Market Measures for 2015, 2016, p. 48).
From the point of view of completion, we record the provision of:

- information and advisory services - 1,415,196 x
  - of which an individual form - 1,103,157 x (77.95%)
  - of which a group form - 312,039 x (22.02%)
- consultancy services - 147 internal consultants (2 280 job seekers per one professional consultant) - "In 2015 there was an almost five-fold rise in the education and retraining agenda in the department of counselling and education, and the associated job seekerevaluation, advisors"(see Chart 2) (Evaluation of the Application of Active Labour Market Measures for 2015, 2016, p.58).

Chart 2: Evolution of the number of professional consultants providing professional counselling services



Source: Custom Processing according to the Evaluation of the Application of Active Labour Market Measures for 2015, 2016, p. 58.

From this we can see a slight decrease in the provided professional services, not excluding the disproportionate reduction of professional consultants. Changes in the area of increased professional guidance providers have been incorporated in the 2016 initiative in the sense of streamlining, complexity and systematic provision of guidance. The quality of counselling systems puts emphasis on minimizing the provision of one-off interventions to the unemployed on the labour market. The largest number of unemployed who were provided with professional counselling services had job seekers without regular paid employment - 75.12%, long-term unemployed job seekers - 54.80%, job seekers over 50 years old - 25.19%, individual counselling - 76% group consultancy 23%, 1% non-specified forms of counselling. The activities of expert advisory services (see Table 3) were mainly focused on:

Table 3: Delivering activities by expert advisory services in 2015

ACTIVITIES OPS	DESCRIPTION OF THE ACTIVITY	FREQUENCY OF PROVISION (in pieces, in %)	PROVIDER
Elaboration of an action plan	- a written document - defines the measures, procedures, timetable for implementation of the measures	- totally elaborated 26 708 x / Ø 5 measures per job seeker	- social counsellor
Group counselling	- oriented on socio-psychological training - Communication training - etc.	- totally provided 36,788 x for 29,516 clients	- social counsellor - counselling psychologist
Counselling programs and projects	- Activity related to selecting clients for training, programs, projects, etc.	- totally provided 8 188 x for 2 509 clients	- social counsellor
Provision of psychological counselling	- Special activity aimed at overcoming psychological problems and personal crises (threats, loss of employment, finding a new one, including failure)	- totally provided 973 x for 238 clients	- counselling psychologist

Source: Evaluation of the application of active labour market measures for 2015 (2016, p. 61)

3. CONCLUSION

The prospect of using social and psychological counselling in practice also illustrates the current social phenomenon of social-pathological phenomena in relation to unemployment. "The occurrence of socio-pathological phenomena caused, respectively related to unemployment is a major determinant of modifying life strategies of the unemployed"(Jusko, In: Inclusive Growth in the Europe 2020 Strategy, p. 87). Buchtová et al. (2002) and Chobotová et al. (2003) in numerous studies indicate a direct correlation of the impact of unemployment on mental and physical health status. In the context of deteriorating physical health, pathological signs of neurosis, decrease of immunity, and cardiovascular diseases occur. Among the socio-pathological phenomena related to the reduction of mental health are depression, behavioural disorders with aggressiveness, domestic violence to criminal

behaviour, alcoholism and alcohol abuse, suicide attempts. Jusko (In: Inclusive Growth in the Europe 2020 Strategy, p. 88) says, that "there are several expert studies on unemployment and suicide. Platt (In: Mares, 2002) collected 156 relevant studies on this topic and carried out their detailed analysis and classification. Unemployment has been shown to be associated with a higher incidence of suicide and unfinished demonstrative suicide." The National Health Information Centre (www.nczisk.sk) under the "Give a Hand, Save Life" project appeals to "the important role of helping to combat unnecessary loss of life." According to statistical indicators, unemployed (34.4%) most often attempted to commit the work-related suicide due to:

- conflicts and family problems - 39%
- internal personal conflicts and problems - 24%
- conflicts and existential problems - 10%

In general, "higher unemployment rates are characterized by a higher degree of para suicides, and those among the unemployed occur up to nine times more often than in the employed population" (Jusko, In: Inclusive Growth in the Europe 2020 Strategy, p. 88).

References

1. AKČNÝ PLÁN NA POSILNENIE INTEGRÁCIE DLHODOBO NEZAMESTNANÝCH NA TRH PRÁCE V SLOVENSKEJ REPUBLIKE. In *Ministerstvo práce, sociálnych vecí a rodiny Slovenskej republiky*. [online]. [cit. 2017-10-6].Available on the internet: https://www.employment.gov.sk/files /slovensky/apdn_06122016_sk_final.pdf
2. AKTIVITY PORADENSKÝCH SLUŽIEB. In *Ústredie práce, sociálnych vecí a rodiny*. [online]. [cit. 2017-11-12]. Available on the internet: http://www.upsv ar.sk/sluzby-zamestnanosti/odborne-poradenske-sluzby/aktivity-odbornych-poradenskych-sluzieb.html?page_id=12845
3. BUCHTOVÁ, B. a kol. 2002. *Nezaměstnanost – psychologický, ekonomická a sociální problém.* Praha : Grada, 2002. 236 s. ISBN 80-247-9006-8.
4. CHOBOTOVÁ, P. a kol. 2003. *Nezaměstnanost a zdraví.* In Vědecká konference: Životné podmienky a zdravie. Štrbské Pleso : Zdravotní ústav se sídlem v Ostravě, 2003 [online]. [cit. 2017-11-3]. Available on the internet:http://www.zuova.cz/ projekty/nezam/strba_sbornik.pdf.
5. JUSKO, P. *Inovatívne prvky v pomoci dlhodobo nezamestnaným klientom v hmotnej núdzi.* In projekt Inkluzívny rast v stratégii Európy 2020 – naivita alebo genialita? [online]. [cit. 2017-10-18]. Available on the internet:http://www.ef.umb.sk/ konferencie/sev_2014/pdf/Jusko.pdf
6. MAREŠ, P. 2002. *Nezaměstnanost jako sociální problém.* Praha: SLON, 2002, 175 s. ISBN 80-86429-08-3.
7. NÁRODNÉ CENTRUM ZDRAVOTNÍCKYCH INFORMÁCIÍ. 2015. *Podaj ruku a zachráň život.* [online]. [cit. 2017-10-30]. Available on the internet: http://www.nczisk.sk/Aktuality/Pages/Podaj-ruku-a-zachran-zivot.aspx
8. VYHODNOTENIE UPLATŇOVANIA AKTÍVNYCH OPATRENÍ NA TRHU PRÁCE ZA ROK 2015. In *Ústredie práce, sociálnych vecí a rodiny.* 2016. [online]. [cit. 2017-11-12]. Available on the internet:http://www.upsvar.sk/buxus/ docs/statistic/aotp_2014/Vyhodnotenie_AOTP_2014.pdf
9. ZÁKON NR SR č. 5/2004 Z. z. o službách zamestnanosti a o zmene a doplnení niektorých zákonov

Contact
Mgr. Monika Šovčíková
Katolícka univerzita v Ružomberku
Pedagogická fakulta
Katedra sociálnej práce
Hrabovská cesta 1
034 01 Ružomberok
sovcikova.m@gmail.com

BLOKOVANIE ZASADNUTIA OBECNÉHO ZASTUPITEĽSTVA

BLOCKING THE MEETING OF THE GENERAL COUNCIL

Rastislav Munk

Abstrakt

Autor sa vo svojom článku zaoberá právnou reglementáciou zasadnutia obecného zastupiteľstva v podmienkach Slovenskej republiky s dôrazom na úmyselné blokovanie zasadnutia obecného zastupiteľstva úmyselnou neúčasťou na zasadnutiach. Ďalej autor hodnotí, rozoberá a analyzuje právnu úpravu zodpovednosti a povinností poslanca obecného zastupiteľstva v Slovenskej republike. V hlavnej časti článku autor poukazuje na praktické problémy úmyselnej neúčasti poslancov obecného zastupiteľstva na zasadnutí obecného zastupiteľstva a nastoľuje svoje návrhy de lege ferenda.

Kľúčové slová: *zasadnutie obecného zastupiteľstva, praktické problémy, povinnosti poslanca obecného zastupiteľstva*

Abstract

The author deals with the legal regulation of the meeting of the General Council in the conditions of the Slovak Republic, with the emphasis on deliberate blocking of the meeting of the General Council by deliberate absence from the sessions. Furthermore, the author assesses, analyzes and analyzes the legal regulation of the responsibilities of the deputy general council in the Slovak Republic. In the main part of the article, the author points out the practical problems of deliberate non-participation of deputies of the General Council at the session of the General Council and restores its proposals de lege ferenda.

Key words: *meeting of the General Council, practical problems, responsibilities of the deputy general council*

1. Úvod

Obec je samosprávny, správny a územný celok. Obec je právnickou osobou, ktorá na svojom území vykonáva správu verejných záležitostí, a túto činnosť je povinná vykonávať vo verejnom záujme.

V rámci výkonu svojich činností obec vykonáva správu verejných záležitostí v rôznych oblastiach života obce a jej obyvateľov. Obec vykonáva svoje činnosti prostredníctvom orgánov obce, ktorými sú starosta obce a obecné zastupiteľstvo.

Základným právnym predpisom upravujúcim základné právomoci, postavenie a fungovanie obce je zákon č. 369/1990 Zb. o obecnom zriadení v znení neskorších právnych predpisov (ďalej len „zákon o obecnom zriadení“).

Obec samostatne rozhoduje a uskutočňuje všetky úkony súvisiace so správou obce a jej majetku, všetky záležitosti, ktoré ako jej samosprávnu pôsobnosť upravuje osobitný zákon, ak takéto úkony podľa zákona nevykonáva štát alebo iná právnická osoba alebo fyzická osoba.

Samosprávu obce vykonávajú obyvatelia obce:

a) orgánmi obce,
b) miestnym referendom,
c) zhromaždením obyvateľov obce.[1]

[1] § 4 ods. 1 a 2 zákona o obecnom zriadení

V mnohých obciach dochádza k základnému rozporu pri fungovaní obce medzi starostom obce a obecným zastupiteľstvom, čo vedie až ku konanie jednotlivých orgánov obce, ktoré je v rozpore so záujmami samotnej obce.
K napísaniu tohto článku ma viedla praktická skúsenosť zo zasadnutia mestského zastupiteľstva v jednom meste v Slovenskej republike. V tomto prípade poslanci obecného zastupiteľstva úmyselne blokovali zasadnutie obecného zastupiteľstva svojou nečinnosťou spočívajúcou v neprítomnosti na zasadnutí obecného zastupiteľstva.
Vzhľadom na skutočnosť, že poslanci obecného (mestského) zastupiteľstva sú voleným orgánom obce v priamych voľbách a dostávajú tak mandát na výkon svojej funkcie od občanov s využitím priamej demokracie, je možné aby tento svoj mandát úmyselne nevykonávali a blokovali tak zasadnutie obecného zastupiteľstva? Nastoľuje sa tiež otázka, či je takéto konanie poslancov obecného zastupiteľstva v súlade so zákonom o obecnom zriadení alebo či takéto konanie je zodpovedné vo vzťahu k výkonu svojej funkcie.

2. Blokovanie zasadnutia obecného zastupiteľstva

Podľa § 10 ods. 1 zákona o obecnom zriadení orgánmi obce sú

a) obecné zastupiteľstvo (ďalej len „obecné zastupiteľstvo“),
b) starosta obce (ďalej len „starosta“).

Obecné zastupiteľstvo môže zriadiť a zrušiť podľa potreby stále alebo dočasné výkonné, kontrolné a poradné orgány, najmä obecnú radu, komisie a určuje im náplň práce; môže zriadiť a zrušiť aj ďalšie svoje orgány a útvary, ak tak ustanovuje osobitný zákon.[2]
Starosta obce ako aj poslanci obecného zastupiteľstva sú volení v priamych voľbách obyvateľmi svojej obce, a tak pri výkone svojej funkcie sa priamo zodpovedajú obyvateľom svojej obce.
K napísaniu tohto článku ma viedla praktická skúsenosť zo zasadnutia mestského zastupiteľstva v jednom meste v Slovenskej republike. V tomto prípade poslanci obecného zastupiteľstva úmyselne blokovali zasadnutie obecného zastupiteľstva svojou nečinnosťou spočívajúcou v neprítomnosti na zasadnutí obecného zastupiteľstva.
K úmyselnému blokovaniu obecného zastupiteľstva poslancami obecného zastupiteľstva nedošlo zo zákonných dôvodov.
Poslanci obecného zastupiteľstva úmyselne svojou neprítomnosťou na riadne starostom obce zvolanom zasadnutí obecného zastupiteľstva blokovali zasadnutie obecného zastupiteľstva z dôvodu, že starosta obce bol prichytení policajnou hliadkou, ako šoféroval pod vplyvom alkoholu a takýmto spôsobom sa snažili vyvinúť na starostu obce nátlak, aby zo svojej funkcie dobrovoľne odstúpil.
Zákon o obecnom zriadení v § 13a ods. 1 definuje možnosti zániku funkcie starostu obce, pričom jedným z dôvodov zániku funkcie starostu obce je právoplatné odsúdenie za úmyselný trestný čin alebo právoplatné odsúdenie za trestný čin, ak výkon trestu odňatia slobody nebol podmienečne odložený.[3]

---

[2] § 10 ods. 1 a 2 zákona o obecnom zriadení
[3] § 13a ods. 1 zákona o obecnom zriadení, citujem: Mandát starostu zaniká
a) odmietnutím sľubu alebo zložením sľubu s výhradou,
b) uplynutím funkčného obdobia,
c) vzdaním sa mandátu,
d) právoplatným odsúdením za úmyselný trestný čin alebo právoplatným odsúdením za trestný čin, ak výkon trestu odňatia slobody nebol podmienečne odložený,
e) pozbavením spôsobilosti na právne úkony alebo obmedzením spôsobilosti na právne úkony,
f) vyhlásením výsledku miestneho referenda o odvolaní starostu, ktorým sa rozhodlo o odvolaní starostu,
g) zmenou trvalého pobytu mimo územia obce; v mestách so samosprávou mestských častí aj v prípade zmeny trvalého pobytu mimo územia mestskej časti, v ktorej vykonáva funkciu,

Nakoľko starosta obce nespáchal trestný čin a ani nedošlo k naplneniu žiadneho z dôvodov na zánik funkcie starostu obce podľa § 13a zákona o obecnom zriadení, tak zo svojej funkcie starostu obce odmietal dobrovoľne odstúpiť, pričom šoférovanie pod vplyvom alkoholu počas výkonu verejnej funkcie starostu obce označil za morálne zlyhanie, za ktoré sa ospravedlnil.
Poslancom obecného zastupiteľstva danej obce ospravedlnenie starostu obce nepostačovalo a zlyhanie starostu považovali za tak závažné, že napriek tomu, že nedošlo k naplneniu žiadneho z dôvodov na zánik funkcie starostu obce podľa § 13a zákona o obecnom zriadení, žiadali aby starosta obce zo svojej funkcie dobrovoľne odstúpil. Za tým účelom úmyselne svojou neprítomnosťou na riadne starostom obce zvolanom zasadnutí obecného zastupiteľstva blokovali zasadnutie obecného zastupiteľstva, čím chceli vyvinúť tlak na starostu obce, aby dobrovoľne zo svojej funkcie starostu obce odstúpil.
Nastoľuje sa tak otázka, či je takéto konanie poslancov obecného zastupiteľstva v súlade so zákonom o obecnom zriadení alebo či takéto konanie je zodpovedné vo vzťahu k výkonu svojej funkcie.
Ústava Slovenskej republiky, ktorú územnú samosprávu upravuje vo svojej štvrtej hlave a ani zákon o obecnom zriadení nám nedáva priamu odpoveď na nastolenú otázku, a tak je potrebné ju hľadať podrobnejším skúmaním.
V prvom rade je potrebné uviesť, že obecné zastupiteľstvo je zastupiteľský zbor obce zložený z poslancov zvolených v priamych voľbách obyvateľmi obce na štyri roky. Volebné pravidlá upravuje osobitný predpis. Funkčné obdobie obecného zastupiteľstva sa končí zložením sľubu poslancov novozvoleného obecného zastupiteľstva.[4]
Ďalej je potrebné uviesť, že zákon o obecnom zriadení pri poslancoch obecného zastupiteľstva ustanovuje tak, ako pri starostovi obce v § 13a zákona o obecnom zriadení podmienky zániku funkcie poslanca obecného zastupiteľstva[5]. Zákon o obecnom zriadení ďalej v ustanovení § 11 ods. 2 ustanovuje podmienky nezlučiteľnosti funkcie poslanca obecného zastupiteľstva[6], čo však v sebe neobsahuje úmyselnú neúčasť na rokovaní zasadnutia obecného zastupiteľstva.
Právna úprava samotného rokovania obecného zastupiteľstva je obsiahnutá v § 12 zákona o obecnom zriadení.

---

h) v prípadoch podľa § 13 ods. 3, ak starosta do 30 dní odo dňa vzniku nezlučiteľnosti funkcie neurobí relevantný úkon na odstránenie tohto rozporu,
i) smrťou,
j) zrušením obce.

[4] § 11 ods. 1 zákona o obecnom zriadení

[5] § 25 ods. 2 zákona o obecnom zriadení, citujem: Mandát poslanca zaniká
a) odmietnutím sľubu alebo zložením sľubu s výhradou,
b) uplynutím funkčného obdobia,
c) vzdaním sa mandátu,
d) právoplatným odsúdením za úmyselný trestný čin alebo právoplatným odsúdením za trestný čin, ak výkon trestu odňatia slobody nebol podmienečne odložený,
e) pozbavením spôsobilosti na právne úkony alebo obmedzením spôsobilosti na právne úkony,
f) zmenou trvalého pobytu mimo územia obce; v mestách so samosprávou mestských častí aj v prípade zmeny trvalého pobytu mimo územia mestskej časti, v ktorej vykonáva funkciu,
g) ak počas jedného roka sa nezúčastní ani raz na zasadnutiach obecného zastupiteľstva,
h) v prípadoch podľa § 11 ods. 2,
i) zrušením obce alebo
j) smrťou.

[6] § 11 ods. 2 zákona o obecnom zriadení, citujem: Funkcia poslanca je nezlučiteľná s funkciou
a) starostu,
b) zamestnanca obce, v ktorej bol zvolený,
c) štatutárneho orgánu rozpočtovej organizácie alebo príspevkovej organizácie zriadenej obcou, v ktorej bol zvolený,
d) podľa osobitného zákona.

Podľa § 12 ods. 1 zákona o obecnom zriadení, obecné zastupiteľstvo zasadá podľa potreby, najmenej však raz za tri mesiace. Ak požiada o zvolanie zasadnutia obecného zastupiteľstva aspoň tretina poslancov, starosta zvolá zasadnutie obecného zastupiteľstva tak, aby sa uskutočnilo do 15 dní od doručenia žiadosti na jeho konanie. Ustanovujúce zasadnutie obecného zastupiteľstva zvolá starosta zvolený v predchádzajúcom volebnom období tak, aby sa uskutočnilo do 30 dní od vykonania volieb. Obecné zastupiteľstvo zasadá v obci, v ktorej bolo zvolené.[7]
Zároveň podľa § 12 ods. 7 zákona o obecnom zriadení, obecné zastupiteľstvo rokuje vždy v zbore. Spôsobilé rokovať a uznášať sa je vtedy, ak je prítomná nadpolovičná väčšina všetkých poslancov. Na prijatie uznesenia obecného zastupiteľstva je potrebný súhlas nadpolovičnej väčšiny prítomných poslancov; na prijatie nariadenia je potrebný súhlas trojpätinovej väčšiny prítomných poslancov. Ak obecné zastupiteľstvo nie je spôsobilé rokovať a uznášať sa, starosta zvolá do 14 dní nové zasadnutie.[8]
V nadväznosti na citované ustanovenia zákona o obecnom zriadení starosta obce si splnil svoju povinnosť a zvolal zasadnutie obecného zastupiteľstva, a tak konal v súlade so zákonom a poslanci obecného zastupiteľstva sa úmyselne zvolaného zasadnutia obecného zastupiteľstva nezúčastnili, a tak obecného zastupiteľstvo nebolo schopné uznášať sa a rokovať, pričom takýmto konaním došlo k zákonom predpokladanému stavu, a tak zo strany poslancov obecného zastupiteľstva nebol porušený zákon o obecnom zriadení a ani žiadny iný právny predpis.
Napriek skutočnosti, že ani starosta obce a ani poslanci obecného zastupiteľstva neporušili zákon, tak nastala patová situácie a jediným poškodeným v danom spore bola samotná obec, ktorej zvolený zástupcovia namiesto toho, aby zabezpečovali verejnú správu obce v mene obyvateľov obce tak, aby ich obec čo najlepšie prosperovala, na základe osobného konfliktu svojim nekonaním spôsobili obci škodu.
V neposlednom rade nemožno opomenúť, že tak výkon funkcie starostu obce, ako aj výkon funkcie poslanca obecného zastupiteľstva je verejným výkonom funkcie, za čo im prináleží odplata z verejných prostriedkov, a tak obyvatelia obce majú právny nárok na to, aby aj starosta obce a aj poslanci obecného zastupiteľstva vykonávali svoj mandát s odbornou starostlivosťou, zodpovedne a s čo najväčšou vážnosťou.
Poslanec obecného zastupiteľstva pred prijatím svojej funkcie je povinný podľa § 26 zákona o obecnom zriadení zložiť sľub „Sľubujem na svoju česť a svedomie, že budem riadne plniť svoje povinnosti, ochraňovať záujmy obce, dodržiavať Ústavu Slovenskej republiky, ústavné zákony, zákony a ostatné všeobecne záväzné právne predpisy, a pri výkone svojej funkcie poslanca obecného zastupiteľstva ich budem uplatňovať podľa svojho najlepšieho vedomia a svedomia.“[9] Z uvedeného sľubu je zrejmé, že poslanec obecného zastupiteľstva je povinný riadne plniť svoje povinnosti, ochraňovať záujmy obce a pri výkone svojej funkcie poslanca obecného zastupiteľstva ich budem uplatňovať podľa svojho najlepšieho vedomia a svedomia, čo úmyselným blokovaním zasadnutia obecného zastupiteľstva neúčasťou poslancov na zasadnutí obecného zastupiteľstva určite nie je naplnené. Zákon o obecnom zriadení však neustanovuje žiadnu sankciu alebo následok za porušenie tohto sľubu.
Najdôležitejšou povinnosťou poslanca obecného zastupiteľstva k rozoberanému prípadu je povinnosť poslanca obecného zastupiteľstva zúčastňovať sa zasadnutí obecného zastupiteľstva a jeho orgánov, do ktorých bol zvolený, a to podľa § 25 ods. 1 písm. b) zákona o obecnom zriadení. Zákon o obecnom zriadení však ani v tomto prípade neustanovuje žiadnu sankciu alebo následok za porušenie tejto povinnosti.

[7] § 12 ods. 1 zákona o obecnom zriadení
[8] § 12 ods. 7 zákona o obecnom zriadení
[9] § 26 zákona o obecnom zriadení

Vzhľadom na uvedené skutočnosti je zrejmé, že poslanec obecného zastupiteľstva je povinný zúčastňovať sa zasadnutí obecného zastupiteľstva a jeho orgánov, do ktorých bol zvolený, a to bez akejkoľvek výnimku a už vôbec nemôže úmyselne svojou neúčasťou blokovať zasadnutie obecného zastupiteľstva.
Nakoľko zákon o obecnom zriadení však neustanovuje žiadnu sankciu alebo následok za porušenie tejto povinnosti, navrhujem v rámci návrhu de lege ferrenda doplnenie právnej úpravy, pričom pri tomto návrhu si dovolím poukázať na právnu úpravu v Českej republike, ktorou by slovenská právna úprava mohla byť inšpirovaná.
Podľa § 89 ods. 1 zákona českej republiky č. 128/2000 Sb. o obcích (obecním zřízení) v platnom znení, nesejde-li se zastupitelstvo obce po dobu delší než 6 měsíců tak, aby bylo schopno se usnášet, Ministerstvo vnitra je rozpustí. Proti tomuto rozhodnutí může obec podat žalobu k soudu.[10]

3. Záver

Predmetom tohto článku – Blokovanie zasadnutia obecného zastupiteľstva bolo načrtnúť problém vyplývajúci z praxe, ktorý sa vyskytuje pri zasadnutí obecného zastupiteľstva, s dôrazom na úmyselnú neúčasť poslancov obecného zastupiteľstva na zasadnutí obecného zastupiteľstva.
Zároveň autor poukázal na nedostatky právnej úpravy v oblasti určenia zodpovednosti a povinností poslancov obecného zastupiteľstva ako volených zástupcov v hlavnom orgáne obce.
V hlavnej časti článku autor poukázal na praktické problémy úmyselnej neúčasti poslancov obecného zastupiteľstva na zasadnutí obecného zastupiteľstva a nastolil svoje návrhy de lege ferenda.

Literatúra

1. Zákon č. 460/1992 Zb. Ústava Slovenskej republiky
2. Zákon č. 369/1990 Zb. o obecnom zriadení v platnom znení
3. Zákon č. 128/2000 Sb. o obcích (obecním zřízení) v platnom znení
4. KOPECKÝ, M.: Právní posravení obcí a krajů – základy komunálního práva. Wolters Kluwer ČR, a.s. Praha. 2010. ISBN: 978-80-7357-561-8
5. SOTOLÁŘ, J.: Zákon o obecnom zriadení (komentár). SOTAC, s.r.o. Košice. 2003. ISBN: 80-968356-1-0

Osobné údaje

Mgr. Rastislav Munk, PhD.
Univerzita Komenského v Bratislave, Právnická fakulta
odborný asistent, Ústav práva informačných technológií a práva duševného vlastníctva
bydlisko: Kríž nad Váhom 130, 916 26 Považany, Slovenská republika
telefonický kontakt: + 421 904 249 033
email: rastislav.munk@flaw.uniba.sk

[10] § 89 ods. 1 zákona č. 128/2000 Sb. o obcích (obecním zřízení) v platnom znení

AUTOMATIZOVANÉ INFORMAČNÉ SYSTÉMY PRE EFEKTÍVNY E-GOVERNMENT

AUTOMATED INFORMATION SYSTEMS FOR EFFICIENT E-GOVERNMENT

Soňa Ralbovská Sopúchová

Abstrakt

Článok sa zaoberá problematikou automatizovaných informačných systémov v oblasti verejnej správy. V úvodnej časti príspevku sa autorka zameriava na objasnenie informačného systému, jeho histórie, účelu a prepojeniu s oblasťou informatizácie spoločnosti. Po stručnej analýze základných atribútov informačného systému sú objasnené informačné systémy verejnej správy s odkazom na najpoužívanejšie informačné systémy. Na záver článku autorka sumarizuje diskutovanú problematiku, uvádza výhody automatizovaných informačných systémov a predstavuje nedostatky súčasných systémov v súvislosti s elektronizáciou verejnej správy.

Kľúčové slová: *informačný systém verejnej správy, elektronizácia verejnej správy, automatizovaný informačný systém*

Abstract

The article deals with the issue of information systems of public administration regarding electronization of public administration. In the introductory part of the article the author focuses on clarifying the information system, its history, purpose and linking with the area of informatization of society. After a brief analysis of basic attributes of information system, are clarified information systems of public administration with reference to the most used information systems. At the conclusion of the article the author summarizes the discussed issue and analyses advantages of electronic information systems and represents shortcomings of the current systems in connection with the electronization of public administration.

Key words: *information system of public administration, electronization of public administration, automated information system*

1 ÚVOD

Informačný systém súvisí so systémovým prístupom k skúmaniu objektov a procesov, ktorý v 20. storočí definitívne nahradil systém mechanistický. Mechanistický prístup bol založený Isaakom Newtonom, ktorý chápal určitý objekt ako súhrn viacerých častí a vlastnosti tohto objektu odvodzoval od vlastností jeho častí, a to bez pozorovania a zvažovania vzájomných ovplyvňovaní sa týchto častí. Naproti tomu systémový prístup, ktorého hlavným predstaviteľom sa stal Ludwig von Bertalanffy, sa zameriaval na vzťahy, väzby a vzájomné vplyvy častí. Podľa druhej uvedenej teórie sa systém chápe ako množina prvkov vo vzájomnej interakcii. V súvislosti s informačným systémom možno uviesť, že jeho prvkom môže byť údaj, dokument, človek, stroj atď.[1] Prvé informačné systémy začali vznikať a rozvíjať sa v 70. až 90. rokoch 20. storočia, pričom nahradili dovtedy využívané autonómne aplikácie, ktoré boli neustále sprevádzané technickými problémami. Po masívnom rozšírení internetu došlo

[1] CEJPEK, Jiří: *Informace, komunikace a myšlení*. Praha: Karolinum, 1999, s. 26, 27.

k viacerým zmenám, napríklad k vzniku portálových riešení informačných systémov, ktoré umožňovali prístup k informáciám prostredníctvom webovej aplikácie – internetového portálu.[2] Informačné systémy sú vytvárané za účelom uľahčenia práce s obrovským množstvom informácií, avšak ich tvorba a následné využívanie v praxi je pomerne zložité. Z toho dôvodu možno pozorovať snahu o čo najkomplexnejšie rozpracovanie teoretických princípov práce s informáciami pri automatizovaní informačných systémov aplikovaním rôznorodých informačných prostriedkov.

2 KONCEPCIA INFORMAČNÉHO SYSTÉMU

Definíciu informačného systému poskytujú viaceré pramene. Ide najmä o legálne definície v právnych predpisoch, avšak pre lepšie praktické pochopenie možno použiť taktiež odborné publikácie viacerých autorov venujúcich sa tejto problematike.

Za základnú definíciu pojmu informačný systém možno považovať ustanovenie § 2 písm. *a) Zákona č. 275/2006 Z. z. o informačných systémoch verejnej správy a o zmene a doplnení niektorých zákonov v znení neskorších predpisov* (ďalej tiež ako „Zákon o informačných systémoch verejnej správy“ alebo „Zákon o ISVS“), podľa ktorého: *„informačným systémom je funkčný celok zabezpečujúci cieľavedomú a systematickú informačnú činnosť*[3] *prostredníctvom technických prostriedkov a programových prostriedkov, ktoré sú súčasťou informačného systému alebo ktoré informačnému systému poskytuje iný informačný systém.* [4]

Podľa uvedených vyjadrení každý informačný systém zahŕňa určitú informačnú základňu, technické a programové prostriedky na jej spracovanie, rôzne technológie činnosti, procedúry a rovnako pracovníkov, ktorí s informačným systém pracujú. *Vyhláška Národného bezpečnostného úradu č. 339/2004 Z. z. o bezpečnosti technických prostriedkov v znení neskorších predpisov* (ďalej tiež ako „Vyhláška o bezpečnosti technických prostriedkov“) poskytuje vysvetlenie informačného systému z technického pohľadu, a to nasledovne: „*informačným systémom sa rozumie jeden počítač alebo viac počítačov, ich programové vybavenie, periférne zariadenia, procesy alebo prostriedky, ktoré tvoria celok schopný vykonávať zber, tvorbu, spracovanie, ukladanie, zobrazenie a prenos utajovaných skutočností.*“[5] Z technického hľadiska teda informačný systém predstavuje prostriedok, ktorým sa zabezpečuje:

- *zber (zhromažďovanie) prvotných údajov,*
- *zapamätanie a uchovanie zhromaždených údajov pre neskoršie použitie,*
- *transformáciu na odvodené údaje – sumarizovanie, zmena poradia, zatriedenie,*
- *prezentáciu výstupných údajov - zobrazenie na obrazovke, tlač na papier a pod.* [6]

V praxi sa často používajú rôzne pojmy pre označenie informačného systému, ktorými zákonodarca alebo používateľ vyjadruje materiálny objekt alebo úkon zahŕňajúci prácu s informáciami. Ide o nasledovné pojmy: evidencia (napr. evidencia vodičov), register (napr. register obyvateľov Slovenskej republiky), zoznam (napr. zoznam liekov), štatistika (napr. štátna štatistika), kniha (napr. kniha údržby a opráv vozňov), denník (napr. lodný denník), záznam (napr. registratúrny záznam), prehľad (napr. prehľad detí, u ktorých existuje potreba sprostredkovať náhradnú rodinnú starostlivosť) či súpis (napr. súpis hnuteľných vecí). Niektoré ďalšie informačné systémy majú vlastné unikátne označenia ako napríklad kataster nehnuteľností alebo matrika. Naproti tomu existujú informačné systémy, pre ktoré neexistuje

[2] *História informačných systémov*. Dostupné na: http://www.kiwiki.info/index.php/Informa%C4%8Dn%C3%BD_syst%C3%A9m

[3] V predmetnom ustanovení sa nachádza tiež definícia informačnej činnosti, podľa ktorej pri tejto ide o získavanie, zhromažďovanie, spracúvanie, sprístupňovanie, poskytovanie, prenos, ukladanie, archivácia a likvidácia údajov.

[4] Ustanovenie § 2 písm. a) Zákona o informačných systémoch verejnej správy.

[5] Ustanovenie § 10 ods. 1 Vyhlášky o bezpečnosti technických prostriedkov.

[6] KOKLES, Mojmír a Anita ROMANOVÁ: *Informatika*. Bratislava: Sprint, 2007, s. 144.

žiadne vhodné označenie uvádzajúce, že ide o informačný systém (napr. údaje potrebné na zostavenie štatistiky obchodu medzi členskými štátmi Európskej únie).

2.1 Informačné systémy verejnej správy

Informačné systémy majú vo verejnej správe kľúčový význam. Dôvodom je skutočnosť, že výkon verejnej správy spočíva vo veľkej miere na rozhodovaní o právach, právom chránených záujmoch a povinnostiach fyzických osôb a právnických osôb. Každý pracovník verejnej správy potrebuje pre vykonávanie tejto činnosti, ako aj ďalších činností, informácie. Tieto môže úradník získavať z právnych predpisov, podaní účastníkov konania, výsledkov vlastnej činnosti a taktiež z údajov vedených orgánmi verejnej správy. Informácie sú teda obsiahnuté v rôznych informačných systémoch, ku ktorým majú zamestnanci verejnej správy a ďalšie subjekty prístup. Legálnu definíciu informačného systému verejnej správy poskytuje Zákon o informačných systémoch verejnej správy, a to v ustanovení § 2 písm. b), podľa ktorého: *„informačným systémom verejnej správy je informačný systém v pôsobnosti povinnej osoby ako správcu informačného systému verejnej správy podporujúci služby verejnej správy, služby vo verejnom záujme a verejné služby.“* [7]

V súčasnej dobe sú najrozšírenejšími informačnými systémami verejnej správy informačné systémy vedené pod teoretickým názvom *„základné registre“*. Toto označenie má zdôrazňovať ich význam ako prvotných zdrojov určitých informácií, a to tak deklaratórneho ako aj konštitutívneho charakteru. Avšak, v našom právnom poriadku neexistujú registre označované ako základné, to znamená, že jednotlivé registre orgánov verejnej správy síce existujú, ale bez štatútu „základné“. Napriek uvedenému si dovolíme v ďalšej časti práce pre odlíšenie jednotlivých informačných systémov používať pre niektoré z nich označenie „základné registre“. Ako príklady základných registrov verejnej správy možno uviesť nasledujúce informačné systémy verejnej správy:

- *Register obyvateľov Slovenskej republiky* upravený v Zákone č. 253/1998 Z. z. o hlásení pobytu občanov Slovenskej republiky a registri obyvateľov Slovenskej republiky v znení neskorších predpisov,
- *Register fyzických osôb* upravený v Zákone č. 253/1998 Z. z. o hlásení pobytu občanov Slovenskej republiky a registri obyvateľov Slovenskej republiky v znení neskorších predpisov,
- *Matrika* upravená v Zákone č. 154/1994 Z. z. o matrikách v znení neskorších predpisov,
- *Živnostenský register* upravený v Zákone č. 455/1991 Zb. o živnostenskom podnikaní (živnostenský zákon) v znení neskorších predpisov,
- *Obchodný register* upravený v Zákone č. 513/1991 Zb. Obchodný zákonník v znení neskorších predpisov,
- *Kataster nehnuteľností* upravený v Zákone č. 162/1995 Z. z. katastri nehnuteľností a o zápise vlastníckych a iných práv k nehnuteľnostiam (katastrálny zákon) v znení neskorších predpisov,
- *Register priestorových informácií* upravený v Zákone č. 3/2010 Z. z. o národnej infraštruktúre pre priestorové informácie,
- *Register adries* upravený v Zákone č. 125/2015 Z. z. o registri adries a o zmene a doplnení niektorých zákonov.

2.2 Právna úprava informačných systémov verejnej správy

Problematika informačných systémov verejnej správy je obsiahnutá v obrovskom množstve právnych predpisov, pretože jednotlivé úseky verejnej správy pracujú s viacerými

[7] Ustanovenie § 2 písm. b) Zákona o informačných systémoch verejnej správy.

informačnými systémami. Za základný a všeobecný právny rámec pre informačné systémy verejnej správy možno označiť nasledovné právne predpisy:

1. *Zákon č. 275/2006 Z. z. o informačných systémoch verejnej správy a o zmene a doplnení niektorých zákonov v znení neskorších predpisov* [8],
2. *Výnos Ministerstva financií Slovenskej republiky č. 55/2014 Z. z. o štandardoch pre informačné systémy verejnej správy* (ďalej tiež ako „Výnos o štandardoch pre ISVS"),
3. *Zákon č. 305/2013 Z. z. o elektronickej podobe výkonu pôsobnosti orgánov verejnej moci a o zmene a doplnení niektorých zákonov (zákon o e-Governmente) v znení neskorších predpisov* (ďalej tiež ako „Zákon o e-Governmente),
4. *Vyhláška Úradu vlády Slovenskej republiky č. 8/2014 Z. z. ktorou sa vykonávajú niektoré ustanovenia zákona o e-Governmente* (ďalej tiež ako „Vyhláška k Zákonu o e-Governmente").

Ad 1.) Zákon o informačných systémoch verejnej správy

Zákon o informačných systémoch verejnej správy, účinný od 1. júna 2006, sa stal jedným z prvých slovenských zákonov v období rozvíjajúceho sa celoeurópskeho procesu informatizácie spoločnosti. Predmetný právny predpis upravuje práva a povinnosti povinných osôb v oblasti vytvárania, prevádzkovania, využívania a rozvoja informačných systémov verejnej správy, základné podmienky na zabezpečenie integrovateľnosti a bezpečnosti informačných systémov verejnej správy, správu a prevádzku ústredného portálu a taktiež postup pri vydávaní elektronického odpisu údajov z informačných systémov verejnej správy a výstupu z informačných systémov verejnej správy. [9] V tejto súvislosti je dôležité upozorniť, že rozoberaný zákon sa nebude aplikovať na tie informačné systémy verejnej správy, ktoré sa týkajú zabezpečenia obrany Slovenskej republiky, bezpečnosti Slovenskej republiky a utajovaných skutočností. [10]

Kľúčové postavenie v procesoch súvisiacich s informačnými systémami verejnej správy majú povinné osoby, tzv. správcovia informačných systémov. Povinné osoby sú zodpovedné za tvorbu, správu a rozvoj jednotlivých informačných systémov, a to na konkrétnom úseku verejnej správy, na ktorom uskutočňujú výkon verejnej správy podľa osobitných predpisov.[11] Dôležitou súčasťou každodenných úkonov povinných osôb podľa Zákona o informačných systémov verejnej správy je vydávanie elektronického odpisu údajov z informačných systémov verejnej správy a výstupu z informačných systémov verejnej správy. Zavedenie vydávania elektronických odpisov a výstupov z informačných systémov vychádza z rozvoja informačných a komunikačných technológií, ktoré v súčasnej dobe umožňujú prístup k údajom so zaručením originality a integrity. Elektronický odpis je súhrn vyžiadaných údajov z informačného systému verejnej správy, ktorý je prístupný v elektronickej podobe, podpísaný zaručeným elektronickým podpisom povinnej osoby a opatrený časovou pečiatkou. Napriek prebiehajúcej informatizácii spoločnosti je zrejmé, že táto nedosiahla ešte stopercentnú použiteľnosť. Z toho dôvodu zákon upravuje možnosť získať výstup z informačného systému verejnej správy, ktorý predstavuje osvedčenú listinnú podobu elektronického odpisu, ktorá je opatrená osvedčovacou doložkou.[12]

[8] Predmetný zákon abrogoval dovtedy platný a účinný Zákon č. 261/1995 Z. z. o štátnom informačnom systéme.
[9] Ustanovenie § 1 ods. 1 Zákona o informačných systémoch verejnej správy.
[10] Ustanovenie § 1 ods. 2 Zákona o informačných systémoch verejnej správy.
[11] Taxatívny výpočet povinných osôb sa nachádza v ustanovení § 3 ods. 3 Zákona o informačných systémoch verejnej správy.
[12] Elektronický odpis a výstup z informačného systému verejnej správy a ich vydávanie je upravené v ustanovení § 7 Zákona o informačných systémoch verejnej správy.

Ad 2.) Výnos o štandardoch pre ISVS

Výnos o štandardoch pre ISVS je účinný od 15. marca 2014 a bol vydaný na základe ustanovenia § 13 ods. 1 písm. a) Zákona o informačných systémoch verejnej správy. Tento predpis nahradil dovtedy platný a účinný Výnos Ministerstva financií Slovenskej republiky č. 312/2010 Z. z. o štandardoch pre informačné systémy verejnej správy. Pojem štandardy pre informačné systémy verejnej správy je upravený v Zákone o informačných systémoch verejnej správy, konkrétne v ustanovení § 6, a to nasledovne: *„Štandardom je súbor pravidiel spojených s vytváraním, rozvojom a využívaním informačných systémov verejnej správy, ktorý obsahuje charakteristiky, metódy, postupy a podmienky, najmä pokiaľ ide o bezpečnosť a integrovateľnosť informačných systémov verejnej správy. Štandardy musia byť otvorené a technologicky neutrálne.“* [13]

Výnos o štandardoch pre informačné systémy verejnej správy je koncipovaný tak, aby reflektoval súčasný stav rozvoja informačných a komunikačných technológií a taktiež zmeny v organizácii štátnej správy a územnej samosprávy. Dôvodom prijatia nového výnosu bola reakcia na výsledky analýzy uplatňovania doterajšieho výnosu v praxi. [14] Prínosom novej právnej úpravy je posilnenie komunikácie medzi orgánmi verejnej správy a občanmi či podnikateľmi, a to na základe faktu, že podľa súčasného výnosu úrady už nebudú môcť odmietnuť určité formáty súborov, ktoré budú elektronicky podpísané. To znamená, že občania môžu pre odoslanie dokumentu či správy povinnej osobe použiť ľubovoľný formát a povinné osoby sú povinné každý formát prečítať.

Ad 3.) Zákon o e-Governmente

Zákon o e-Governmente je účinný od 1. novembra 2013 a predstavuje kľúčový právny predpis pre problematiku elektronizácie verejnej správy a elektronických informačných systémov. Súčasťou úpravy tohto zákona sú niektoré informačné systémy pre výkon pôsobnosti orgánov verejnej moci v elektronickej podobe. Konkrétne, orgány verejnej moci sú v rozsahu svojej pôsobnosti povinné zabezpečiť vytvorenie a prevádzku:

a) *prístupových miest,*
b) *spoločných modulov*
c) *agendových systémov.* [15]

Prístupové miesta sú komunikačné rozhrania, pomocou ktorých je možné vykonávať elektronickú komunikáciu. Sú určené na zabezpečenie kontaktu medzi orgánom verejnej správy a osobami, o ktorých právach, právom chránených záujmoch a povinnostiach orgány verejnej správy pri výkone verejnej správy elektronicky rozhodujú alebo vo vzťahu ku ktorým verejnú správu vykonávajú.

Spoločné moduly predstavujú informačné systémy verejnej správy, ktoré centrálne zabezpečujú jednotný výkon základných funkcií potrebných na výkon verejnej správy elektronicky a sú opakovane využívané orgánmi verejnej správy pri vzájomnej elektronickej komunikácii na účely výkonu verejnej správy elektronicky.

Agendové systémy sú taktiež informačnými systémami verejnej správy. Tieto sú spravované orgánmi verejnej správy a sú určené na zabezpečenie výkonu verejnej správy v rozsahu pôsobnosti a oprávnení týchto orgánov podľa osobitných predpisov.

Vo všetkých vyššie uvedených prípadoch ide o informačné systémy, ktoré umožňujú orgánom verejnej moci uskutočňovať výkon verejnej moci v elektronickej podobe. Primárnou úlohou existencie týchto informačných systémov je umožniť fungovanie verejnej moci pomocou elektronických prostriedkov v celom rozsahu a v každom štádiu bez potreby osobného

[13] Ustanovenie § 6 ods. 1 a 2 Zákona o informačných systémoch verejnej správy.

[14] Informácie dostupné na: http://www.informatizacia.sk/aktuality-novy-vynos-c-55-2014-z-z-o-standardoch-pre-informacne-systemy-verejnej-spravy/17066c

[15] Ustanovenie § 4 ods. 2 a nasl. Zákona o e-Governmente.

kontaktu alebo zasielania listinných dokumentov medzi orgánmi verejnej moci a občanmi a rovnako zabezpečenie ich prístupnosti osobám so zdravotným postihnutím.

3 ZÁVER

Informačné systémy predstavujú primárny a kľúčový prvok modernej a efektívne fungujúcej verejnej správy. Aspekt informačných a komunikačných technológií možno pozorovať aj v tejto oblasti, a to najmä v podobe automatizovaných informačných systémov, ktoré zhromažďujú referenčné údaje elektronickým spôsobom a vo virtuálnom elektronickom prostredí. V súčasnosti používa automatizované informačné systémy väčšina orgánov verejnej správy, a to do takej miery, že by si zamestnanci verejnej správy už nevedeli bez nich predstaviť výkon svojej práce. Napriek viacerým rizikám možno konštatovať, že automatizované informačné systémy sú prínosné, efektívne a uľahčujú prácu úradníkom a rovnako občanom či podnikateľom. Ďalším krokom smerom k ešte vyššej efektívnosti a dosiahnutiu celkovej informatizácie verejnej správy, je zabezpečenie interoperability jednotlivých informačných systémov, teda možnosti prístupu úradníka ku všetkým údajom, ktoré potrebuje pre vybavenie jednej úradnej záležitosti tak, aby občan nemusel predkladať údaje a materiály na viacerých orgánoch verejnej správy opakovane. Tu možno opätovne spomenúť jeden z pozitívnych krokov, ktorým bolo prijatie Zákona o e-Governmente, ktorý predstavuje základnú spoločnú platformu pre viaceré procesy informatizácie verejnej správy vrátane problematiky informačných systémov verejnej správy.

Na základe analýzy automatizovaných informačných systémov verejnej správy sa domnievame, že tieto ponúkajú niekoľko výhod, ktoré možno zosumarizovať nasledovne:

a) zabezpečenie väčšej dostupnosti takmer všetkých služieb verejnej správy,
b) nižšie náklady vybavovania úradných záležitostí,
c) časovo neobmedzený rozsah možnosti vybavenia úradnej záležitosti (7/24),
d) automatizácia a archivácia jednotlivých úkonov a dokumentov,
e) vzájomná spolupráca a komunikácia medzi orgánmi verejnej správy,
f) znižovanie zaťaženia životného prostredia.

Použitá literatúra

1. CEJPEK, J. *Informace, komunikace a myšlení*. Praha: Karolinum, 1999, 179 s., ISBN 80-7184-767-4
2. KOKLES, M., ROMANOVÁ A. *Informatika.* Bratislava: Sprint, 2007, 344 s., ISBN 80-8908-593-4
3. Výnos Ministerstva financií Slovenskej republiky č. 55/2014 Z. z. o štandardoch pre informačné systémy verejnej správy
4. Zákon č. 275/2006 Z. z. o informačných systémoch verejnej správy a o zmene a doplnení niektorých zákonov
5. Zákon č. 305/2013 Z. z. o elektronickej podobe výkonu pôsobnosti orgánov verejnej moci a o zmene a doplnení niektorých zákonov (zákon o e-Governmente)
6. http://www.informatizacia.sk/aktuality-novy-vynos-c-55-2014-z-z-o-standardoch-pre-informacne-systemy-verejnej-spravy/17066c
7. http://www.kiwiki.info/index.php/Informa%C4%8Dn%C3%BD_syst%C3%A9m

Kontaktné údaje

JUDr. Soňa Ralbovská Sopúchová, PhD.
Univerzita Komenského v Bratislave, Právnická fakulta
Šafárikovo námestie č. 6, 810 00 Bratislava, Slovenská republika
Tel: +412 904 142 442
email: sona.sopuchova@flaw.uniba.sk

VŠEOBECNE O ZDRAVOTNEJ DOKUMENTÁCII

REGULATION OF MEDICAL DOCUMENTATION

Peter Koromház

Abstrakt

Autor sa v predkladanom príspevku venuje fenoménu zdravotnej dokumentácie, pričom sa snaží čitateľovi priblížiť problematiku právnej úpravy vedenia, sprístupňovania a spracovávania zdravotnej dokumentácie. Autor sa v príspevku ďalej venuje poukázaniu na pomerne široký rozsah právnej úpravy normujúcej uvedenú oblasť práva, ktorý je daný najmä tým, že problematika vedenia zdravotnej dokumentácie nesúvisí rýdzo len s administratívnymi a formálnymi otázkami, ale aj s ochranou osobnostných práv pacient či dodržiavaním povinnosti lekára zachovávať mlčanlivosť o zdravotnom stave pacienta. Autor sa v príspevku venuje taktiež prebiehajúcej elektronizácii verejnej správy, v tomto prípade dotýkajúcej sa oblasti poskytovania zdravotnej starostlivosti a poukazuje na jej priamu súvislosť s problematikou vedenia zdravotnej dokumentácie.

Kľúčové slová: *zdravotná dokumentácia, pacient, lekár*

Abstract

The author deals with the phenomenon of medical documentation in the present paper and tries to bring the reader closer to the issue of the regulation of the management, accessibility and processing of the health documentation. The author uses this contribution to refer to the relatively wide scope of legislation governing the area of law, particularly since the issue of health records management is not only related to administrative and formal issues, but also to the protection of the patients' personal rights or the observance of the doctor's duty keep confidentiality about the patient's health. In the contribution, the author also deals with the ongoing electronisation of public administration, in this case affecting the area of health care provision, and points to its direct link to the issue of health records.

Key words: *medical documentation, patient, doctor*

ÚVOD

V súvislosti s poskytovaním zdravotnej starostlivosti sa každému z nás pri prvom zamyslení sa, bez pochýb, vynorí zhluk myšlienok zameraných na proces poskytovania samotnej medicínskej liečby, diagnostikovania chorôb, riešenia zistených zdravotných problémov. Poskytovanie zdravotnej starostlivosti však nie je len o samotnom výkone rýdzo medicínskych činností, ale v neposlednom rade je spojené s mnohými inými „administratívnymi činnosťami“, ktoré musia byť nevyhnutne vykonávané v súlade s právnou úpravou, a to tak, aby v dôsledku ich nesprávneho vykonávania nedochádzalo k porušovaniu práv pacienta. Jednou z takýchto činností, bez ktorej by v konečnom dôsledku nemohlo dochádzať k adekvátnemu poskytovaniu zdravotnej starostlivosti a záchrane ľudských životov je vedenie zdravotnej dokumentácie. Pre pochopenie jej významu a dôležitosti je nevyhnutné riadne vymedzenie jej obsahu, ktoré samo o sebe bude determinovať potrebu náležitej ochrany údajov obsiahnutých v zdravotnej dokumentácii. Ak sme v úvode načrtli, že pod pojmom poskytovanie zdravotnej starostlivosti nemožno chápať iba činnosť chirurga operujúceho pacienta uspatého na operačnej sále, tak na tomto mieste považuje za podstatné pripomenúť, že k výkonu konkrétneho operačného zákroku môže v súlade s právnymi

predpismi dôjsť až po náležitom poučení pacienta a jeho následnom udelení informovaného súhlasu. Jeho udelenie musí byť z povahy jeho dôležitosti niekde natrvalo zaznamenané, pričom takýmto miestom je práve zdravotná dokumentácia[1]. Z uvedeného možno extrahovať, že pre náležité poskytnutie zdravotnej starostlivosti lege artis bude podstatné dodržať všetky zákonom stanovené predpoklady jej poskytnutia, medzi ktoré zaraďujeme aj také úkony ako je náležité poučenie pacienta, informovanie o jeho stave a zaznamenávanie všetkých týchto úkonov, spolu s poskytnutou medicínskou liečbou, do dokumentu nazývajúceho sa zdravotná dokumentácia. Preštudovanie predmetnej oblasti z dôvodu jej rozsiahlosti a prienikov z mnohými právnymi odvetviami vyžaduje oveľa väčší priestor ako len jeden takýto príspevok. Našou snahou je však v tomto prípade poskytnúť čitateľovi základné informácie o aktuálne platnej a účinnej právnej úprave v Slovenskej republike, pričom uvedený substrát informácií bude v ďalšom predstavovať potrebný základ pre riešenie zložitejších otázok spojených s vedením zdravotnej dokumentácie, jej sprístupňovaním v nadväznosti na iné právne otázky, s ktorými sa stretnú riešitelia vedeckého výskumného projektu, počas riešenia ktorého je tento príspevok publikovaný.

1 RELEVANTNÁ PRÁVNA ÚPRAVA

Právna úprava normujúca otázky spojené so zdravotnou dokumentáciou je primárne obsiahnutá v ustanoveniach zákona č. 576/2004 Z. z. o zdravotnej starostlivosti, službách súvisiacich s poskytovaním zdravotnej starostlivosti a o zmene a doplnení niektorých zákonov v znení neskorších predpisov (ďalej len „Zákon o zdravotnej starostlivosti“ alebo „ZoZS“). Ustanovenie § 6 ods. 2 ZoZS nám poskytuje legálnu definíciu pojmu zdravotná dokumentácia, pod ktorým zákon chápe „súbor údajov o zdravotnom stave osoby, o zdravotnej starostlivosti a o službách súvisiacich s poskytovaním zdravotnej starostlivosti tejto osobe.“ Zo samotnej definície tohto pojmu je zrejmé, že obsahom zdravotnej dokumentácie budú najmä informácie a údaje, ktoré sú úzko späté s osobou a osobnosťou pacienta, čo samo o sebe determinuje nevyhnutné špecifiká, s ktorými sa pri skúmaní tejto právno–medicínskej problematiky budeme musieť neskôr vysporiadať. Predmetný Zákon o zdravotnej starostlivosti ďalej v tretej časti ponúka pomerne komplexnú právnu úpravu všetkých podstatných právnych otázok spojených s problematikou zdravotnej dokumentácie pacienta, ktorým sa budeme venovať v ďalšej časti príspevku.

S pojmom zdravotná dokumentácia sa ďalej môžeme stretnúť taktiež v ustanoveniach zákona č. 578/2004 Z. z. o poskytovateľoch zdravotnej starostlivosti, zdravotníckych pracovníkoch, stavovských organizáciách v zdravotníctve a o zmene a doplnení niektorých zákonov (ďalej len „Zákon o poskytovateľoch“ alebo „ZoPZS“). Uvedený zákon síce neupravuje problematiku zdravotnej dokumentácie z hľadiska určenia jej obsahu alebo foriem jej vedenia, avšak vo svojich ustanoveniach upravuje základné povinnosti poskytovateľa zdravotnej starostlivosti a ošetrujúceho zdravotníckeho pracovníka, ktorých obsahom sú aj povinnosti týkajúce sa zdravotnej dokumentácie. Vo svojej podstate poskytuje uvedený zákon nevyhnutné doplnenie právneho základu obsiahnutého v Zákone o zdravotnej starostlivosti, a to najmä v pri otázkach týkajúcich sa určenia subjektov, ktoré sú povinné zdravotnú dokumentáciu viesť a následne zodpovedať za prípadné porušenia právnych predpisov.

Uvedené dva zákony sú lex specialis voči zákonu č. 40/1964 Zb. Občiansky zákonník v znení neskorších predpisov (ďalej len ako „Občiansky zákonník“ alebo „OZ“), ktorý obsahuje základ právnej úpravy ochrany osobnosti fyzických osôb. V predchádzajúcom texte sme už načrtli, že otázka vedenia zdravotnej dokumentácie je úzko spätá s problematikou zásahov do osobnosti pacienta, a preto pri určovaní okruhu základnej právnej úpravy podstatnej pre rozpracovanie uvedenej problematiky považujeme za nevyhnutné prihliadnuť aj na tento

[1] Bližšie pozri ustanovenie § 16 ods. 1 Zákona o zdravotnej starostlivosti

kódex. Občiansky zákonník bude v neposlednom rade podstatným pri posudzovaní zodpovednostných právnych vzťahov, ktoré pri potenciálnom porušení práv pacienta v dôsledku nesprávneho vedenia zdravotnej dokumentácie budú vznikať.
Na tomto mieste považujeme za nevyhnutné pripomenúť aj tú skutočnosť, že základ ochrany osobnostných práv je bez pochýb daný Ústavou Slovenskej republiky[2] a ďalej tiež ratifikovanými medzinárodnými zmluvami a dohovormi, ku ktorým Slovenská republika pristúpila[3].
Vedenie zdravotnej dokumentácie je v neposlednom rade spojené taktiež so spracovaním osobných údajov. Slovenská republika normuje predmetnú oblasť právnych vzťahov vďaka osobitnému právne predpisu, ktorým je zákon č. 122/2013 o ochrane osobných údajov a o zmene doplnení niektorých zákonov, na ktorý v ustanovení § 18 ods. 1 odkazuje priamo Zákon o zdravotnej starostlivosti. Na tomto mieste zdôrazňujeme aj dôležitosť tej skutočnosti, že Slovenská republika je členským štátom Európskej Únie, ktorá sa v poslednom období výrazne podieľa na zmene právnych úprav jej členských štátov v otázkach dotýkajúcich sa ochrany osobných údajov.
Posledným právnym predpisom, na ktorý chceme čitateľov osobitne upozorniť je zákon č. 153/2013 Z. z. o národnom zdravotníckom informačnom systéme a o zmene a doplnení niektorých zákonov (ďalej len „Zákon o národnom zdravotníckom systéme“, ktorý taktiež výrazne zasahuje do sféry právnej úpravy vedenia zdravotnej dokumentácie.

2 ZDRAVOTNÁ DOKUMENTÁCIA

Vychádzajúc z vyššie uvedeného môžeme konštatovať, že základný právny rámec úpravy otázok spojených so zdravotnou dokumentáciou nachádzame v Zákone o zdravotnej dokumentácii. Už uvádzaná tretia časť zákona pojednáva najmä o spracovaní, poskytovaní a sprístupňovaní údajov zo zdravotnej dokumentácie, o formách jej vedenia, zabezpečovaní jej uchovávania a poskytovania údajov v nej obsiahnutých.
Zdravotná dokumentácia je podľa slovenskej právnej úpravy res extra comercio.[4] Uvedená skutočnosť sa prejavuje najmä v časti právnej úprave normujúcej spôsob nakladania so zdravotnou dokumentáciou pri zmene všeobecného lekára pacienta, a teda častokrát aj samotného poskytovateľa zdravotnej starostlivosti. Zákon o zdravotnej starostlivosti podrobne normuje spôsob akým dochádza k odovzdaniu zdravotnej dokumentácie, pričom sleduje základný cieľ ktorým je to, aby nedošlo k jej strate, prípadne zničeniu pri zániku poskytovateľa zdravotnej starostlivosti. Podľa zákona však pacient nemá nárok nakladať so zdravotnou dokumentáciou ako so svojím majetkom. V uvedených súvislostiach poukazujeme na porovnanie právneho režimu zdravotnej dokumentácie v Českej republike, kde možno taktiež konštatovať prevládajúci názor o tom, že zdravotná dokumentácia nie je vlastníctvom pacienta[5].
V súlade s ustanovením § 19 ods. 3 ZoZS vedie zdravotnú dokumentáciu ako celok všeobecný lekár, pričom iným ošetrujúci zdravotnícky pracovník, ako napríklad lekár-špecialista, vedie zdravotnú dokumentáciu pacienta iba v tom rozsahu, v ktorom dochádza k poskytnutiu zdravotnej starostlivosti ním samým. Za spracovanie, poskytovanie a sprístupňovanie údajov zo zdravotnej dokumentácie však nie je v súlade s ustanovením § 18 ods. 1 ZoZS zodpovedný všeobecný lekár, ale poskytovateľ zdravotnej starostlivosti (ďalej aj

[2] Ústavný zákon č. 460/1992 Zb. ústava Slovenskej republiky
[3] Za všetky uvádzame najmä Dohovor o ochrane ľudských práv a slobôd, Všeobecnú deklaráciu ľudských práv, Dohovor o právach dieťaťa a ďalšie
[4] Kováč,P.: Právna úprava zdravotnej dokumentácie v Slovenskej republike. In: Via practica, 1/2004, str. 49, dostupné online <http://www.viapractica.sk/index.php?page=pdf_view&pdf_id=1705&magazine_id=1>
[5] Bližšie pozri napríklad SVEJKOVSKÝ, J. - VOJTEK, P. - ARNOŠTOVÁ L. T. a kol.: Zdravotnictví a právo. Praha: C. H. Beck, 2016, str. 302 alebo ŠUSTEK, P. - HOLČAPEK, T. a kol.: Zdravotnícke právo. Praha: Wolters Kluwer ČR, 2é16, str. 167

ako „poskytovateľ“).[6] Podľa ustanovenia § 22 ZoZS je poskytovateľ zodpovedný taktiež za zabezpečenie zdravotnej dokumentácie. Dokumentáciu vedenú všeobecným lekárom je poskytovateľ povinný uchovávať po dobu 20 rokov po smrti pacienta a ostatnú zdravotnú dokumentáciu 20 rokov od posledného poskytnutia zdravotnej starostlivosti. V nadväznosti na znenie už uvedeného ustanovenia § 19 ods. 2 ZoZS máme za to, že ostatnou zdravotnou dokumentáciou možno rozumieť dokumentáciu vedenú ošetrujúcim zdravotníckym pracovníkom- lekárom špecialistom a nie všeobecným lekárom, v obmedzenom rozsahu.
Možno konštatovať, že právna úprava Slovenskej republiky takmer vôbec nediferencuje medzi spôsobom vedenia zdravotnej dokumentácia v závislosti od výkonu rôznych druhov medicínskych zákrokov, alebo prípadne v závislosti od špecifík osoby pacienta, akými môžu byť napríklad jeho vek (maloletý pacient, dospelý pacient), prípadne skutočnosť, že sa jedná o pacienta nakazeného vysoko nákazlivou infekčnou chorobou, alebo skutočnosť, že pacient je vzhľadom na určenú diagnózu nebezpečný pre okolie. Jedinou výnimkou je ustanovenie § 19 ods. 4 ZoZS, ktoré počíta s osobou pacienta, ktorou je žena, ktorá písomne požiadala o utajenie svojej osoby v súvislosti s pôrodom podľa ustanovenia § 11 ods. 11 ZoZS.
Z hľadiska koncepcie platnej právnej úpravy je veľmi podstatnou povinnosť zachovať mlčanlivosť o informáciách získaných zo zdravotnej dokumentácie, pričom túto povinnosť má podľa ustanovenie § 18 ods. 3 ZoZS každý komu sa takéto informácie poskytnú alebo sprístupnia. Zákon ďalej rieši otázku mlčanlivosti osobitne aj v ustanovení § 49 ZoZS, kde kladie povinnosť mlčanlivosti osobám, ktoré zabezpečujú evidenciu a uchovanie už skôr spomínanej osobitnej zdravotnej dokumentácie, pričom tejto mlčanlivosti môže osoby zbaviť iba súd. Vo všeobecnosti nemožno zabúdať pri posudzovaní otázky mlčanlivosti tiež na všeobecnejšiu úpravu Zákona o zdravotnej starostlivosti, ktorý v ustanovení 11 ods. 9 písm. f) uvádza, že „pri poskytovaní zdravotnej starostlivosti má každý právo za podmienok ustanovených týmto zákonom na zachovanie mlčanlivosti o všetkých údajoch týkajúcich sa jeho zdravotného stavu, o skutočnostiach súvisiacich s jeho zdravotným stavom.“
Môžeme teda sumarizovať, že povinnosť zachovávať mlčanlivosť o zdravotnom stave pacienta zaznamenanom v zdravotnej dokumentácii sa netýka len zdravotníckeho pracovníka, ale všetkých osôb, ktorým je zdravotná dokumentácia sprístupnená alebo sa k jej obsahu dopracovali akýmkoľvek iným spôsobom. Je však nevyhnutné jedným dychom dodať, že u zdravotníckeho pracovníka ide o stavovskú povinnosť zo značne široko definovaným vecným rozsahom, porušenie ktorej spôsobuje okrem občianskoprávnej zodpovednosti aj riziko disciplinárneho konania a uloženie príslušnej sankcie.[7] Záverom dodávame, že povinnosť zachovávať mlčanlivosť pretrváva počas alebo aj po smrti fyzickej osoby, ktorej sa poskytuje zdravotná starostlivosť.[8]

2.1 Obsah zdravotnej dokumentácia

Vyššie uvedené pojmové vymedzenie pojmu zdravotná dokumentácia nám neposkytuje uspokojivú informáciu o tom, čo všetko má byť obsahom vedenej zdravotnej dokumentácie. Pri hľadaní odpovede na to, čo a aké konkrétne informácie majú byť poňaté v zdravotnej dokumentácii je nevyhnutné mať na zreteli to, že zdravotná dokumentácia je základným informačným zdrojom, ktorý má obsahovať komplexný súbor informácii o doposiaľ poskytnutej, prípadne následne plánovanej zdravotnej starostlivosti a tiež ďalšie informácie, ktoré lekár považuje za potrebné zaznamenať v súvislosti s poskytovanou zdravotnou

[6] K vymedzeniu pojmu poskytovateľ bližšie pozri ustanovenie § 4 Zákona o poskytovateľoch zdravotnej starostlivosti
[7] HUMENNÍK, I.: Ochrana osobnosti a medicínske právo. 1. vydanie, Bratislava: EUROKÓDEX, s.r.o., 2011, str. 111
[8] HUMENÍK, I., TOMKOVÁ, K.: Povinná mlčanlivosť zdravotníckych pracovníkov. In Slovenský lekár, číslo 5-6/2017, ISSN 1335-0234, str. 108 – 111.

starostlivosťou.[9] Účel vedenia zdravotnej dokumentácie by mal podľa nášho názoru determinovať aj jej obsah, pretože len dostatočne kvalitne zaznamenaný súbor informácií o doterajšej liečbe, diagnostike a zdravotnej anamnéze pacienta môže byť v budúcnosti kvalitným podkladom pre poskytnutie zdravotnej starostlivosti. Najmä na základe ustanovenia § 19 ods. 2 a nasl. ZoZS môžeme označiť základné okruhy informácií, ktoré majú tvoriť obsah zdravotnej dokumentácie:

- osobné údaje pacienta v rozsahu meno, priezvisko, dátum narodenia, rodné číslo, adresa bydliska a údaje potrebné pre zistenie anamnézy;
- údaje týkajúce sa poučenia daného pacientovi a informácie o následne udelenom informovanom súhlase;
- údaje týkajúce sa chorobopisu pacienta, výsledkov doterajších vyšetrení a doterajšieho postupu pri diagnostike;
- údaje o doteraz poskytnutej zdravotnej starostlivosti – liečbe;
- údaje o dočasnej pracovnej neschopnosti a o liečebnom režime;
- údaje týkajúce sa zdravotnej poisťovne a poskytovateľa zdravotnej starostlivosti
- údaje o odobratom, spracovanom, testovanom, či distribuovanom ľudskom tkanive alebo bunkách;
- informácie o osobe zadávajúcej do zdravotnej dokumentácie ten ktorý záznam a údaje o čase jeho zadania.

V uvedenej súvislosti poukazujeme na skutočnosť, že právna úprava nevyžaduje, aby bola súčasťou zdravotnej dokumentácie aj fotografia pacienta, pričom v praxi sú známe prípady, kedy došlo k zámene pacientiek len na základe podobnosti ich mien, pričom ošetrujúci zdravotnícky pracovník vychádzal pri poskytnutí zdravotnej starostlivosti z nesprávnej zdravotnej dokumentácie[10]. V tejto súvislosti je teda nevyhnutné apelovať na lekárov, aby pri poskytovaní zdravotnej starostlivosti venovali náležitú pozornosť overeniu totožnosti pacienta a jeho stotožneniu s osobnými údajmi uvedeným v zdravotnej dokumentácii, z obsahu ktorej čerpajú.

Z načrtnutého rozsahu a škály údajov zapisovaných do zdravotnej informácie vyplýva, že ich prípadné neoprávnené zverejnenie je spôsobilé výrazne zasiahnuť do osobnosti pacienta a narušiť jeho právo na súkromie, ktoré je chránené prostredníctvom viacerých medzinárodných dokumentov, ktorými je Slovenská republika viazaná. Základnou normou obsahujúcou právo na súkromie je pritom Dohovor o ochrane ľudských práv a základných slobôd v znení jeho protokolov a v sledovanej právnej oblasti tiež Dohovor o biomedicíne.[11]

Z hľadiska posudzovania obsahu zdravotnej dokumentácie je zaujímavá otázka vedenia zdravotnej dokumentácie o osobe pacientky, ktorá požiadala o utajenie v súvislosti s pôrodom. V toto prípade je nevyhnutné poznamenať, že v súlade s ustanoveniami Zákona o zdravotnej starostlivosti sa vedú osobné údaje o takejto pacientke umožňujúce jej identifikáciu oddelene od osobitnej zdravotnej dokumentácie, ktorej obsahom sú len informácie súvisiace s tehotenstvom a utajeným pôrodom, ako aj nevyhnutné osobné údaje slúžiace pre zistenie anamnézy takejto pacientky. Predmetná osobitná zdravotná dokumentácia spolu s doplnenými, osobitne vedenými informáciami umožňujúcimi identifikáciu pacientky, je následne zo zákona zapečatená ako celok.

[9] MACH, J. a kol.: Univerzita medicínskeho práva. Praha: Grada Publishing, a.s., str. 116
[10] Bližšie pozri napr. prípad Vo vs. Francúzsko pred ESĽP
[11] HUMENNÍK, I.: Ochrana osobnosti a medicínske právo. 1. vydanie, Bratislava: EUROKÓDEX, s.r.o., 2011, str. 110

2.2 Formy vedenia zdravotnej dokumentácie

Zdravotná dokumentácia sa podľa Zákona o zdravotnej starostlivosti vedie v písomnej alebo elektronickej forme.[12] Základným rozdielom medzi písomnou formou a elektronickou formou je spôsob zaznamenania údajov obsiahnutých v zdravotnej dokumentácii. V prípade elektronickej formy vedenia je nevyhnutné poznamenať, že táto je vždy doplnená o elektronický podpis. V súvislosti s prijatím zákona č. 272/2016 Z. z. o dôveryhodných službách pre elektronické transakcie na vnútornom trhu a o zmene a doplnení niektorých zákonov je na tomto mieste nevyhnutné poukázať na rozdiel v použitých pojmoch, keď Zákon o zdravotnej starostlivosti nie adekvátne reaguje na novoprijatý zákon, ktorý už nepoužíva pojem elektronický podpis, ale hovorí o kvalifikovanom elektronickom podpise a o ďalších iných formách elektronických podpisov ako napríklad mandátny podpis, či kvalifikovaná elektronická pečať.

Pre vedenie elektronickej zdravotnej dokumentácie je ďalej príznačné, že sa vedie na záznamovom nosiči v textovej, grafickej alebo aj audiovizuálnej forme. Najmä zachytenie obsahu zdravotnej dokumentácie v audiovizuálnej podobe je zaujímavým krokom v pred, ktorý reflektuje aktuálnym potrebám bežného života. Z hľadiska vedenia zdravotnej dokumentácie a jej formy je podstatným ustanovenie § 21 ods. 3 ZoZS, ktoré výslovne uvádza, že „zápis v zdravotnej dokumentácii musí byť pravdivý a čitateľný.“ Na prvý pohľad sa predmetné ustanovenie zdá byť až úsmevne triviálne, avšak čitateľnosť urobeného záznamu pri písomnej forme je veľmi podstatnou, pretože ako to vyplýva z už vyššie uvedených skutočností, zdravotná dokumentácia poskytuje základný prameň informácií o zdravotnom stave pacienta, ktorý je nevyhnutný pre správne poskytovanú zdravotnú starostlivosť v budúcnosti. Napríklad v prípade záznamov týkajúcich sa intolerancie pacienta na niektoré účinné látky, ale aj v mnohých iných prípadoch, je nevyhnutné, aby boli zdravotné záznamy čitateľné a tým pádom sa znižovalo riziko nesprávne poskytnutej zdravotnej starostlivosti. Vo vzťahu k formám vedenia zdravotnej starostlivosti opätovne poukazujeme na to, že je viac než potrebné, aby ošetrujúci zdravotnícky pracovník vždy náležite identifikoval osobu pacienta a stotožnil ju so správnou zdravotnou dokumentáciou týkajúcou sa jej zdravotného stavu.

Z hľadiska formy vedenia zdravotnej dokumentácie sa javí byť veľmi významnou zmena právnej úpravy, ktorá v Slovenskej republike prichádza s postupným zavedením elektronického zdravotníctva. Zákon o národnom zdravotníckom systéme počíta s vytvorením národného informačného systému čerpajúceho informácie z údajovej základne národného zdravotníckeho informačného systému. Vo vzťahu k problematike zdravotnej dokumentácie poukazujeme najmä na ustanovenie § 2 ods. 6 Zákona o národnom zdravotníckom systéme, ktorý definuje pojem elektronická zdravotná knižka, ktorá je podľa zákona súborom údajov zo zdravotnej dokumentácie osoby vedených v Národnom registri elektronických zdravotných knižiek. Uvedená zmena právnej úpravy by mala priniesť sprehľadnenie a rýchlejšie sprístupnenie zdravotnej dokumentácie pacienta aktuálne ošetrujúcemu zdravotníckemu pracovníkovi, ako aj samotnému pacientovi. Zákon zavádza aj ďalšie pojmy ako napríklad pacientsky sumár, ktorý je časťou elektronickej zdravotnej knižky v rozsahu základných údajov o zdravotnom stave pacienta. Otázkou ostáva či by na uvedené nové pojmy nemal reflektovať aj Zákon o zdravotnej starostlivosti‘, ktorý zatiaľ používa výlučne pojem zdravotná dokumentácia.

[12] Bližšie pozri ustanovenie § 20 Zákona o zdravotnej starostlivosti

3 SPRÍSTUPŇOVANIE A POSKYTOVANIE ÚDAJOV ZO ZDRAVOTNEJ DOKUMENTÁCIE

Prístup k zdravotnej dokumentácii má samozrejme všeobecný lekár, ktorý túto dokumentáciu vedie a z logiky veci tiež samotný pacient, ktorého sa vedená zdravotná dokumentácia týka. Pacient má právo požadovať sprístupnenie zdravotnej dokumentácie formou nahliadnutia do zdravotnej dokumentácie, pričom má pacient zo zákona právo robiť si na mieste výpisky alebo kópie zdravotnej dokumentácie. Uvedené tvrdenia vyplývajú z ustanovenia § 25 ZoZS, pričom je však nevyhnutné dodať, že osoba pacienta nie je jedinou a výlučnou osobou majúcou právo na sprístupnenie jej zdravotnej dokumentácie. Všetky nami uvádzané práva vyplývajúce z práva na sprístupnenie zdravotnej dokumentácie sa týkajú:

- pacienta alebo jej zákonného zástupcu;
- po smrti pacienta, jeho manžela, manželky, dieťaťa alebo jeho rodičov alebo ich zákonných zástupcov, prípadne ak takejto osoby niet, tak plnoletej osobe žijúcej s pacientom v čase jeho smrti v domácnosti, blízkej osobe alebo zákonnému zástupcovi takýchto osôb;
- osoby, ktorú splnomocnil pacient alebo osoba, ktorá je sama oprávnená na sprístupnenie zdravotnej dokumentácie, pričom takéto splnomocnenie musí byť úradne osvedčené;

a v osobitných zákonom predpokladaných prípadoch tiež:

- revízneho lekárova, revízneho farmaceuta a revíznej sestry príslušnej zdravotnej poisťovne pacienta;
- Úradu pre dohľad nad zdravotnou starostlivosťou;
- Ministerstva zdravotníctva SR, lekára samosprávneho kraja a sestry samosprávneho kraja;
- posudkového lekára;
- znalcova;
- príslušného orgánu stavovskej organizácie v rozsahu kontroly výkonu zdravotníckeho povolania;
- odborného pracovníka epidemológie.[13]

Okrem vyššie uvedených prípadov sprístupnenia zdravotnej dokumentácie formou nahliadnutia, zákon počíta taktiež s poskytnutím údajov zo zdravotnej dokumentácie formou poskytnutia výpisu. V súlade s ustanovením § 24 ZoZS je všeobecný lekár povinný bezodkladne poskytnúť výpis zo zdravotnej dokumentácie pacienta najmä inému ošetrujúcemu zdravotníckemu pracovníkovi na základe jeho vyžiadania a to za účelom náležitého poskytnutia zdravotnej starostlivosti aktuálne ošetrujúcim zdravotníckym pracovníkom. V uvedenej súvislosti poukazujeme na zmeny týkajúce sa elektronizácie vedenia zdravotnej dokumentácie, ktoré by mali viesť k tomu, že ošetrujúci zdravotnícky pracovník odlišný od osoby všeobecného lekára bude mať priamy prístup k zdravotnej dokumentácii pacienta v elektronickej podobe, čím sa vylúči potreba uplatňovania pomerne zdĺhavého procesu vyžiadania si výpisu zo zdravotnej dokumentácie. Zákon o zdravotnej starostlivosti počíta s poskytnutím výpisu zdravotnej starostlivosti taktiež ďalším subjektom uvedeným v ustanovení § 24 ods. 4 ZoZS. Ide najmä o orgány činné v trestnom konaní, inšpektorát práce, pričom tieto subjekty majú právo na poskytnutie údajov zo zdravotnej dokumentácie iba v rozsahu v akom sú nevyhnutné pre plnenie ich činnosti určených osobitným zákonom.

Už z vyššie uvedeného vyplýva, že v prípade poskytnutia a sprístupnenia zdravotnej dokumentácie pacienta nad rámec zákonom predpokladaných prípadov dôjde k zásahu do osobnej sféry pacienta, jeho práva na súkromie, prípadne do niektorého z ďalších dielčích

[13] Bližšie pozri ustanovenie § 25 ods. 1 Zákona o zdravotnej starostlivosti

osobnostných práv. Za uvedené pochybenie bude zodpovedať pacientovi poskytovateľ zdravotnej starostlivosti podľa ustanovení Občianskeho zákonníka o zodpovednosti za škodu. Podstatné je poukázať na to, že poskytovateľovi zdravotnej starostlivosti vzniká možnosť uplatnenia si regresného nároku voči ošetrujúcemu zdravotníckemu pracovníkovi skrz zamestnanecký pomer, v ktorom sa tento nachádza. Do úvahy môže prichádzať taktiež trestnoprávna rovina zodpovednosti konkrétneho lekára a v neposlednom rade disciplinárna zodpovednosť zdravotníckeho pracovníka voči svojej stavovskej organizácii, na ktorú sme už v príspevku poukazovali. V neposlednom rade považujeme z nevyhnutné pripomenúť úlohy Úradu pre dohľad nad zdravotnou starostlivosťou, ktorý má v právnom poriadku Slovenskej republiky pri ochrane práv pacientov nenahraditeľné miesto a je vyjadrením verejného záujmu na poskytovaní zdravotnej starostlivosti v súlade s právnymi predpismi.

ZÁVER

Problematika vedenia, spracovania, sprístupňovania zdravotnej dokumentácie sa síce javí byť na prvý pohľad rýdzo administratívnou záležitosťou, avšak takéto jej zjednodušené ponímanie nie je správne. Na základe vyššie uvedeného vyplýva, že fenomén zdravotnej dokumentácie je priamo spätý s procesom poskytovania zdravotnej starostlivosti a tvorí jeho inherentnú súčasť. Uvedená problematika je taktiež úzko spätá s problematikou ochrany osobnosti pacienta, taktiež s otázkou ochrany jeho osobných údajov a v neposlednom rade s všade prítomnou elektronizáciou verejnej správy. Účelom príspevku malo byť poskytnutie prierezového pohľadu na uvedenú problematikou so zachytením jej osobitných špecifík a s poukázaním na rozmanitosť právnych predpisov, v ktorých uvedená problematika nachádza právnu reguláciu. Máme za to, že tento cieľ bol splnený a veríme, že príspevok prispeje k tomu, aby si nezainteresovaný čitateľ mohol uvedomiť komplexnosť uvedenej problematiky a tiež to, že právna úprava vedenia zdravotnej dokumentácie nie je len rýdzo administratívnou otázkou, ale naopak má výrazný občianskoprávny, ale aj verejnoprávny charakter. Uvedené len podčiarkuje špecifické postavenie tzv. medicínskeho alebo zdravotníckeho práva v právnom systéme.

Príspevok vznikol v rámci riešenia grantového projektu č. APVV-16-0002 s názvom „Duševné zdravie na pracovisku a posudzovanie zdravotnej spôsobilosti zamestnanca“

Použitá literatúra

1. HUMENNÍK, I. *Ochrana osobnosti a medicínske právo.* 1. vydanie. Bratislava: EUROKÓDEX, s.r.o., 2011, ISBN 978-80-89447-58-9.
2. HUMENÍK, I., TOMKOVÁ, K. *Povinná mlčanlivosť zdravotníckych pracovníkov*. In Slovenský lekár, č. 5-6/2017, ISSN 1335-0234.
3. MACH, J. a kol. *Univerzita medicínskeho práva*. Praha: Grada Publishing, a.s., 2013, ISBN 978-80-247-5113-9
4. SVEJKOVSKÝ, J. - VOJTEK, P. - ARNOŠTOVÁ L. T. a kol. *Zdravotnictví a právo.* Praha: C. H. Beck, 2016, ISBN 978-80-7400-619-7.
5. ŠUSTEK, P. - HOLČAPEK, T. a kol. *Zdravotnícke právo.* Praha: Wolters Kluwer ČR, 2016, ISBN 978-80-7552-321-1.

Kontaktné údaje

Mgr. Peter Koromház
Univerzita P. J. Šafárika v Košiciach, Fakulta práva
Kováčska 26, 040 75 Košice
Tel: 0915 933 699
email: peter.koromhaz@upjs.sk

KARIÉROVÉ PORADENSTVO POSKYTOVANÉ NA ZÁKLADNÝCH ŠKOLÁCH A V CENTRÁCH PEDAGOGICKO-PSYCHOLOGICKÉHO PORADENSTVA A PREVENCIE NA SLOVENSKU

CAREER COUNSELLING PROVIDED AT ELEMENTARY SCHOOLS AND CENTERS OF PEDAGOGICAL-PSYCHOLOGICAL COUNSELLING AND PREVENTION IN SLOVAKIA

Alena Koláriková

Abstrakt

Predkladaný príspevok je venovaný téme kariérového poradenstva poskytovaného na základných školách a v Centrách pedagogicko-psychologického poradenstva a prevencie („CPPPaP“). Autorka sa zameriava na kariérové poradenstvo, ktoré je súčasťou výchovného poradenstva na základných školách. Prvá časť príspevku je venovaná charakteristike kariérového poradenstva. Druhá časť príspevku sa zameriava na kariérové poradenstvo určené žiakom, na výchovného poradcu poskytujúceho takéto poradenstvo a na úlohy kariérovej prípravy na základných školách. V tretej časti sa autorka venuje kariérovému poradenstvu poskytovanému v Centrách pedagogicko-psychologického poradenstva a prevencie a na výsledky celoslovenského prieskumu, ktorý bol zameraný na zistenie aktuálneho stavu v oblasti kariérového poradenstva.

Kľúčové slová: *Centrá pedagogicko-psychologického poradenstva a prevencie, Kariérové poradenstvo, Výchovný poradca, Základné školy.*

Abstract

The submitted article is dedicated to the topic of career counselling provided at the elementary schools and its provision of Centres of educational and psychological counselling and prevention („CPPPaP“). The author focuses on career counselling, that is part of the educational counselling at elementary schools. The first part of the article is devoted to the career counsellig characteristic. The second part of the article focuses on career counselling for pupils, to a educational counselor providing such advice and on the role of career development at elementary schools. In the third part the author deals with the career conselling provides in Centers of pedagogical-psychological counselling and prevenion and on the results of a nationwide survey aimed at identifying the current state of carrer counselling.

Key words: *Centers of pedagogical-psychological counseling and prevention, Career counselling, Educational consultant, Elementary schools.*

ÚVOD

Autor Gabura (2013, s. 13) vo svojej publikácii uvádza, že poradenstvo sa čím ďalej tým viac poskytuje v rôznych vedných odboroch. Môže ísť napr. o psychologické, sociálne, kariérové, ekonomické, daňové, finančné, a pod.) a tak dopomáha k úspešnejšiemu a rýchlejšiemu vyriešeniu problémovej situácie klienta. V našom príspevku sa budeme venovať práve kariérovému poradenstvu, konkrétne poskytovanému žiakom na základných školách a v Centrách pedagogicko-psychologického poradenstva a prevencie na Slovensku.

V Slovenskej republike má kariérové poradenstvo dlhodobú tradíciu a do roku 1989 sa rozvíjalo pod názvom poradenstvo v profesionálnom vývine. V tomto období sa vyvíjalo aj na zahraničnej poznatkovej báze (Lepeňová, Hargašová 2012). Vzhľadom k téme príspevku poradenstvo môžeme chápať aj v rovine edukačnej, výchovnej, či osvetovej činnosti. Prostredníctvom výchovy sa žiakom odovzdávajú rady, názory a usmernenia človeka, ktoré vychádzajú z vlastných skúseností. Výchovou môžeme rozumieť aj vedenie človeka k dosiahnutiu určitého cieľa, rovnako ako sa to odohráva v poradenskom procese (Novotná, Holíková, In Štefáková, Hulínová 2016).
Cieľom príspevku je poukázať na kariérové poradenstvo poskytované v školskom systéme a v Centrách pedagogicko-psychologického poradenstva a prevencie. V príspevku sú spomenuté aj výsledky prieskumu CPPPaP, ktoré vzhľadom na zameranie príspevku považujeme za prínosné.

1 CHARAKTERISTIKA KARIÉROVÉHO PORADENSTVA

Pre charakterizovanie kariérového poradenstva je potrebné najskôr charakterizovať pojem kariéra ako celok. Gandelová a Tholtová (2007) uvádzajú, že kariéra je sled zamestnaní, prác a pozícií, ktoré človek zastáva v priebehu života a dodávajú, že je to aj dráha človeka, na ktorej získava nové skúsenosti, rozvíja svoje kompetencie a realizuje svoj osobný potenciál. Takúto charakteristiku kariéry budeme považovať za jej všeobecnú charakteristiku. Pri práci so študentmi ide o podporné poradenské služby, prostredníctvom ktorých študenti rozvíjajú svoje osobné zdroje tak, aby boli schopní stanoviť a naplniť svoje profesijné ciele, pričom najdôležitejším pojmom je kariérna zrelosť. Kariérna zrelosť predstavuje schopnosť orientovať sa v oblasti voľby povolania, tzn. že človek vie prijať rozhodnutia v oblasti kariéry (napr. výber školy a pod.). Podľa výskumov kariérna zrelosť rastie s vekom, pričom dievčatá majú kariérnu zrelosť vyššiu ako chlapci.
Pripájame aj definíciu Organizácie pre hospodársku spoluprácu a rozvoj**,** (OECD) podľa ktorej „kariérové poradenstvo predstavuje služby a aktivity zamerané na pomoc jednotlivcom každého veku a v ktorejkoľvek fáze ich života pri voľbe vzdelávania, odbornej prípravy a povolania a pri riadení svojej kariéry“, pričom jednotlivé služby „sa môžu vykonávať na školách, inštitúciách poskytujúcich odbornú prípravu, univerzitách a vysokých školách, vo verejných službách zamestnanosti, na pracoviskách, v treťom sektore alebo na komunálnej úrovni a v súkromnom sektore“ formou individuálneho, skupinového alebo osobného kontaktu či dištančne, „vrátane telefonického poradenstva a služieb na internetových stránkach“. „Služby zahŕňajú poskytovanie kariérových informácií (v tlačenej, elektronickej alebo inej forme), hodnotiace a samohodnotiace nástroje, poradenské rozhovory, programy kariérového vzdelávania (zamerané na podporu rozvoja vedomia seba samého, vnímania možností a zručností pre riadenie kariéry)“ taktiež „skúšobné programy (prehľad možností pred voľbou), programy pre vyhľadávanie práce, služby pre tranzitné obdobia“(Career Guidance: A handbook for policymakers, 2004, s. 10).
Autori Kika a Vetráková (2007) do kariérového poradenstva zahŕňajú aj žiakov a tvrdia že by sa malo zaoberať aj uplatnením a postavením žiaka a študenta ako pracovnej sily – s jeho pracovným začlenením, so skúmaním ale aj realizovaním súladu medzi jeho osobnosťou (predpokladmi, záujmami) a požiadavkami na danú konkrétnu pracovnú činnosť, s pracovným výkonom a výkonnosťou, s problematikou pracovnej adaptácie a pod. Kariérové poradenstvo určené žiakom základných škôl primerané opisujú autori Ihnacík, Špitka, Paulová (2007), ktorí hovoria, že poradenstvo realizované v kompetencii Ministerstva školstva SR je zacielené na riešenie problémov žiakov počas ich štúdia, pri výbere ďalšieho štúdia, resp. budúcej profesijnej orientácie. V kariérovom poradenstve v rezorte školstva vzdelávanie poskytuje Metodicko-pedagogické centrum. Poradenské služby v podmienkach

Ministerstva školstva poskytujú Štátny pedagogický ústav, Štátny inštitút odborného vzdelávania a Výskumný ústav detskej psychológie a patopsychológie (Markovič, 2015).

2 KARIÉROVÉ PORADENSTVO POSKYTOVANÉ ŽIAKOM NA ZÁKLADNÝCH ŠKOLÁCH

V nasledujúcej časti budeme venovať väčšiu pozornosť kariérovému poradenstvu poskytovanému žiakom na základných školách a na výchovných poradcov poskytujúcich aj toto poradenstvo.

Ihnacík (2013) hovorí, že v rámci školského systému v oblasti školskej a profesijnej orientácie je kariérové poradenstvo orientované na pomoc pri plánovaní voľby štúdia, povolania a pracovného uplatnenia. Kariérový poradca pracuje s informáciami s prihliadnutím na školské a profesijné záujmy žiakov a študentov, informácie o možnostiach a podmienkach štúdia na zvolenej škole, o požiadavkách prijatia na štúdium, o pracovnom trhu a pod. Základom v poradenských inštitúciách v školstve je individuálna a skupinová práca so žiakmi s problémami v profesijnom vývine. Pre uľahčenie prechodu absolventov škôl do zamestnania je taktiež nevyhnutné vytvárať prostredie, v ktorom sa môžu dobre orientovať školy, vzdelávacie a poradenské inštitúcie, absolventi škôl, zamestnávatelia a sociálni partneri, riadiaci zamestnanci, ale aj široká verejnosť zastupovaná žiakmi a ich zákonnými zástupcami.

Kariérové poradenstvo sa v rámci školského systému poskytuje tak na základných a stredných školách, ako aj na vysokých školách (univerzitách). V školstve na regionálnej úrovni (tzn. na základných a stredných školách) kariérové poradenstvo poskytujú výchovní poradcovia. Činnosti výchovného poradcu sa upriamujú na vyhľadávanie žiakov s problémami v správaní a vývine, vykonávanie aktivít v oblasti prevencie, poskytovanie konzultácií pri vzdelávacích a výchovných problémoch, realizovanie profesijného poradenstva (Markovič, 2015). Poradenstvo o výbere povolania v školách poskytuje aj školský psychológ alebo školský špeciálny pedagóg. Psychológovia poskytujú kariérové poradenstvo v Centrách pedagogicko-psychologického poradenstva a prevencie. Podľa Š. Matulu je spoločensky významnou kariérová výchova a kariérové poradenstvo. Primeraná kariérová výchova a poradenstvo na školách je účinným nástrojom prevencie pred možnou nezamestnanosťou v budúcnosti, osobitne dlhodobou (Matula, 2006).

Podstatnou zložkou systému výchovného poradenstva a prevencie (aj kariérového poradenstva v rezorte školstva), sú *výchovní poradcovia*. Títo poradcovia pracujú nielen za základných školách, ale aj stredných školách a sú v úlohe poradcov prvého kontaktu pre deti a mládež, rodičov a učiteľov (Majer, 2006). Podľa Zákona NR SR č. 248/2008 Z.z. o výchove a vzdelávaní úlohou *výchovného poradcu* podľa tohto zákona je v prípade potreby sprostredkovať deťom a ich zákonným zástupcom pedagogické, psychologické, sociálne, psychoterapeutické, reedukačné a iné služby, ktoré koordinuje v spolupráci s triednymi učiteľmi. Výchovný poradca úzko spolupracuje so školským psychológom, školským špeciálnych pedagógom a odbornými zamestnancami poradenských zariadení. Výchovné poradenstvo sa poskytuje pri riešení osobnostných, vzdelávacích, profesionálnych a sociálnych potrieb detí a kariérového poradenstva.

Hlavnou náplňou výchovného poradcu je pomáhať riešiť špecifické otázky psychického, výchovného a sociálneho vývinu detí a mládeže a poskytovať aj kariérové poradenstvo v oblasti voľby ďalšieho štúdia a povolania. Kariérové poradenstvo tak vytvára celistvý proces, ktorý začína nástupom žiaka do základnej školy a pokračuje ďalej celý život. Základná škola poskytuje žiakom nielen kvalitné vzdelanie, no zároveň ich musí vybaviť dostatočnými vedomosťami a kompetenciami, ktoré žiaci potrebujú k voľbe ďalšieho štúdia na strednej škole a povolania K základným úlohám kariérovej prípravy na základných a stredných školách sa zaraďuje:

a) sprostredkovanie systému študijno-profesijných informácií,

b) sledovanie a hodnotenie fyzického, psychického a sociálneho vývinu a individuálnych schopností počas výchovno-vzdelávacieho procesu (sú dôležité pre voľbu budúceho povolania),
c) rozvíjanie všeobecných a špeciálnych schopností žiakov, formovať študijné a mimoškolské záujmy,
d) poskytovanie individuálnej pomoci žiakom pri vytváraní profesionálnych plánov,
e) zabezpečovanie informačno-poradenskej, konzultačnej a diagnostickej činnosti v procese voľby povolania aj prostredníctvom výchovného poradcu (Riedlmajer, 2008).

3 KARIÉROVÉ PORADENSTVO V CENTRE PEDAGOGICKO-PSYCHOLOGICKÉHO PORADENSTVA A PREVENCIE

Podľa Zákona NR SR č. 248/2008 Z.z. o výchove a vzdelávaní sa v *Centrách pedagogicko-psychologického poradenstva a prevencie* sa poskytuje psychologická, špeciálno-pedagogická, diagnostická, výchovná, poradenská a preventívna činnosť deťom v oblasti ich osobnostného, vzdelávacieho a profesijného vývinu, starostlivosti o rozvoj nadania, eliminovania porúch psychického vývinu a porúch správania. Poradenské služby poskytuje zákonným zástupcom detí a pedagogickým zamestnancom.

Ako príklad uvádzame Centrum pedagogicko-psychologického poradenstva a prevencie v meste Martin, ktoré okrem pedagogicko-psychologického poradenstva poskytuje aj kariérové poradenstvo. Cieľom aktivít kariérového poradenstva je pomôcť žiakom končiacich ročníkov na základnej či strednej škole správne sa rozhodnúť pri výbere kariérovej dráhy a predísť tak prípadnému zlyhaniu v profesijnom aj osobnom živote.

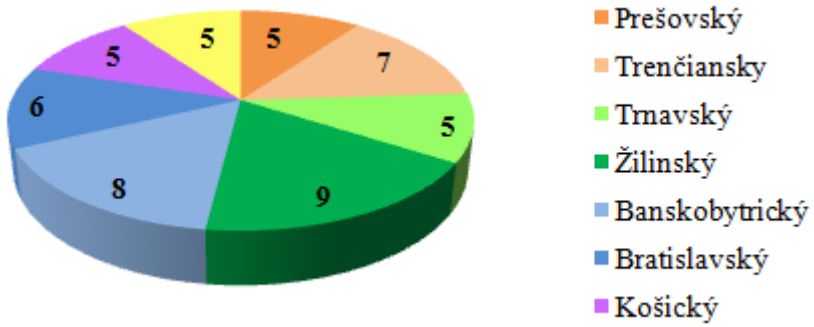
V rámci kariérového poradenstva centrum ponúka tieto programy:

1. Správna voľba v ZŠ, budúci úspech v profesionálnom živote a na trhu práce.
2. Profesijná orientácia – psychologická diagnostika.
3. Poradenstvo a konzultácie pri výbere SŠ a VŠ.
4. Burza informácii pre voľbu povolania (www.cpppapmartin.sk).

V zborníku II. poradenské dni v Slovenskej republike s medzinárodnou účasťou pod názvom *Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy*, bol uvedený celoslovenský prieskum zameraný na vykonávanie kariérového poradenstva v Centrách pedagogicko-psychologického poradenstva a prevencie. Poradenstvo v oblasti voľby ďalšieho štúdia a povolania je častým dôvodom, kvôli ktorému klienti vyhľadajú služby zariadení CPPPaP na Slovensku. Prieskum bol orientovaný na spôsob realizácie kariérového poradenstva, na jednotlivé metódy a diagnostické nástroje, ale aj na potreby, požiadavky a vízie pracovníkov CPPPaP. Pre potreby prieskumu bol zostavený jednoduchý dotazník, ktorý bol prostredníctvom elektronickej pošty distribuovaný do 75-tich CPPPaP na Slovensku. (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

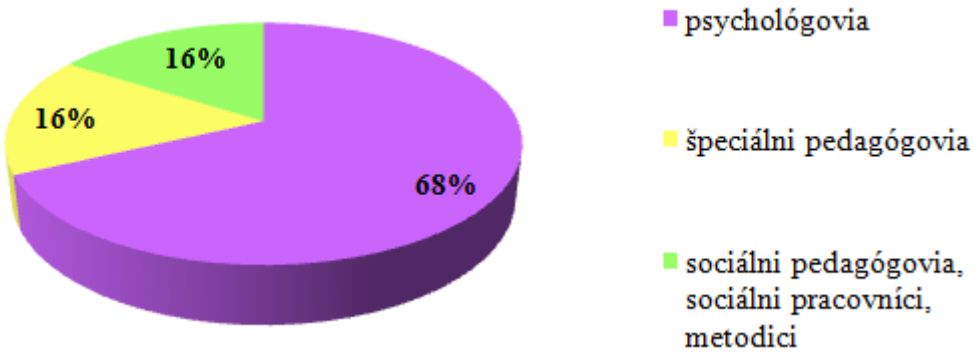
Graf 1 ukazuje počet Centier pedagogicko-psychologického poradenstva a prevencie podľa krajov, ktoré sa zúčastnili na prieskume. Najväčšie zastúpenie tvorili CPPPaP zo Žilinského a Banskobystrického kraja.

Graf 1 CPPPaP zúčastnené na prieskume podľa krajov



Zdroj: (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

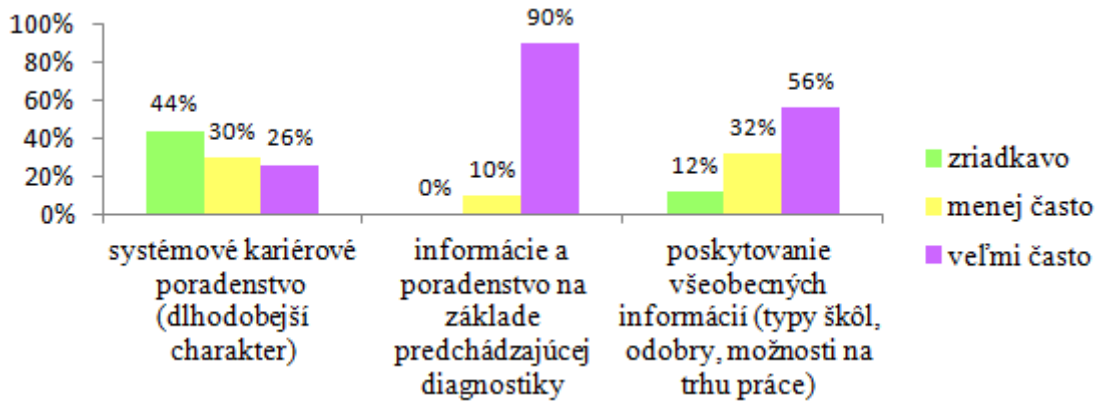
Graf 2 Podiel odborníkov na kariérovom poradenstve v CPPPaP



Zdroj: vlastné spracovanie

Ako vyplýva z grafu 2, na realizácii kariérového poradenstva v CPPPaP sa podieľajú predovšetkým psychológovia (68%), v menšej miere špeciálni pedagógovia (16%) a participujú tu aj sociálni pedagógovia, sociálni pracovníci a metodici (16%) (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

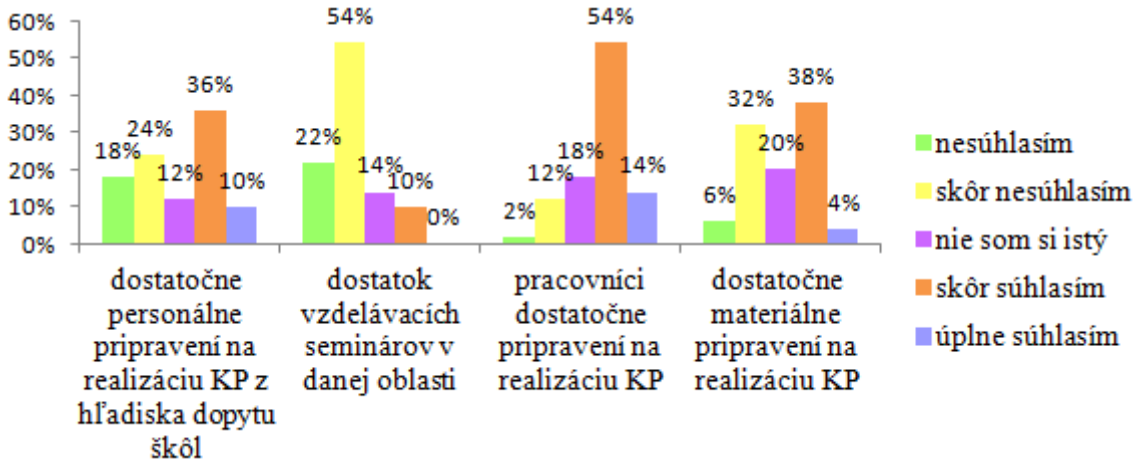
Graf 3 Kariérové poradenstvo a jeho využívanie v praxi



Zdroj: (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

Z Grafu 3 je možné vidieť, že respondenti využívajú *systémové kariérové poradenstvo*, ktoré má dlhodobejší charakter, ďalej prevláda *klasické poradenstvo* na základe predchádzajúcej diagnostiky, ktoré má zvyčajne 2-3 stretnutia, čo môže byť v praxi ovplyvnené aj tým, že zariadenia CPPPaP sú v niektorých prípadoch menej personálne zastúpené. Na druhej strane realizácia systémového poradenstva si vyžaduje viacej času na jeho prípravu, realizáciu a taktiež aj na priebežné vzdelávanie odborníkov, na čo mnohé zariadenia nemajú priestor vzhľadom na široké zameranie náplne práce (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).
Na grafe 4 z prieskumu možno vidieť súčasný stav kariérového poradenstva podľa názoru respondentov, v ktorom sa pýtali na personálnu pripravenosť, dostatok vzdelávacích seminárov z oblasti kariérového poradenstva, pripravenosť zamestnancov na vykonávanie kariérového poradenstva a materiálnu pripravenosť.

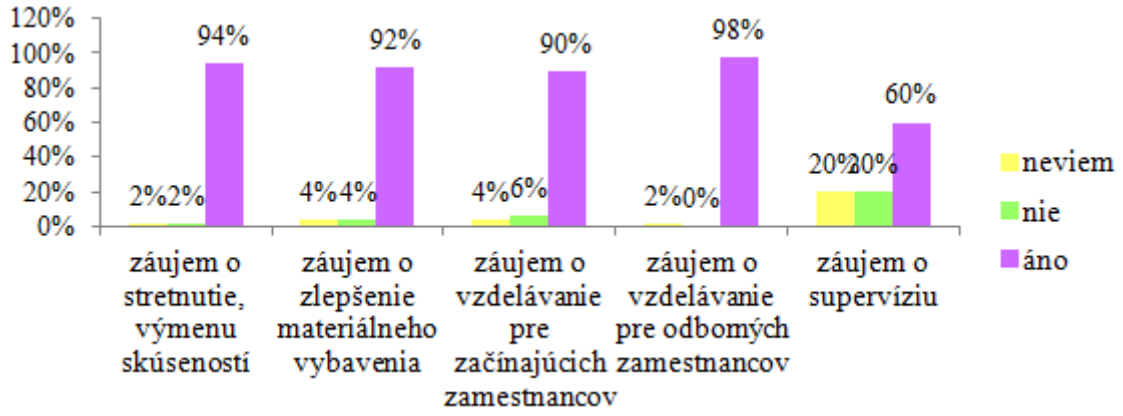
Graf 4 Aktuálny stav KP z pohľadu respondentov



Zdroj:(Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

Ako vyplýva z Grafu 4, v súvislosti s aktuálnym stavom kariérového poradenstva z pohľadu respondentov, CPPPaP sú vo väčšej miere *dostatočne pripravené* na realizáciu kariérového poradenstva. Odpovede respondentov v súvislosti so *vzdelávacími aktivitami* v oblasti kariérového poradenstva naznačujú, že odborní zamestnanci CPPPaP majú nedostatok *príležitostí vzdelávať sa* v danej oblasti. V tomto prípade je nevyhnutné pripravovať a plánovať rôzne formy vzdelávania pre odborných zamestnancov tak, aby boli prínosom po teoretickej, ale aj praktickej rovine a aby boli využiteľné priamo pri práci s klientom. Deficit materiálneho zabezpečenia pociťuje 38% opýtaných, viac ako 40% opýtaných zariadení prezentuje dostatočnú materiálnu pripravenosť v súvislosti s realizáciou KP (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).
Graf 5 ukazuje záujem respondentov o zlepšenie kariérového poradenstva v oblasti výmeny skúseností, vzdelávania, zlepšenia materiálneho vybavenia, či realizácie supervízie.

Graf 5 Záujem respondentov o zlepšenie KP



Zdroj:(Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

Z Grafu 5 vyplýva, že odborní zamestnanci CPPPaP majú o *odborné vzdelávanie* jednoznačný záujem, taktiež o *vzájomné stretnutia a semináre*, príp. bálintovské skupiny, a to či už na krajskej alebo regionálnej úrovni. Pozitívne možno hodnotiť aj záujem o realizáciu *supervízie* pri kariérovom poradenstve, kde je potrebné pripraviť erudovaných a skúsených odborníkov, ktorí by supervíziu realizovali. V tejto časti prieskumu sa ukazuje potreba zlepšiť *materiálne vybavenie* CPPPaP, čo môže byť ovplyvnené tým, že zlepšenie a zefektívnenie procesu kariérového poradenstva je v praxi spájané s dostatočným personálnym obsadením CPPPaP. Výsledky výskumu taktiež ukázali, že až 35% klientov CPPPaP tvoria klienti, ktorí vyhľadali služby CPPPaP za účelom kariérového poradenstva. Možno konštatovať, že ide o vysoké percentuálne zastúpenie, nakoľko výber strednej, či vysokej školy je v centre záujmu nielen samotných žiakov a ich rodičov, ale aj pedagógov, keďže vhodný výber je predpokladom úspešného pokračovania v štúdiu a jeho ukončenia (Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti – tradícia, aktuálny stav, perspektívy, 2011).

4 ZÁVER

V súčasnej dobe zachytávame čoraz viac zmien v oblasti pracovného trhu a taktiež informácie, týkajúce sa povolaní, ktoré sa neustále menia. Trh práce kladie veľký dôraz na voľbu vzdelávania a profesnej dráhy jednotlivca. Kariérové poradenstvo pomáha jednotlivcovi rozhodnúť sa o svojom ďalšom vzdelávaní, odbornej príprave pre pracovný trh a voľbe zamestnania. Klientmi kariérového poradenstva nemusia byť len dospelí ľudia, ale čoraz častejšie sa nimi stávajú aj mladí ľudia, dokonca aj žiaci základných škôl. Títo žiaci už počas štúdia na základnej škole rozmýšľajú o svojom ďalšom štúdiu, o tom na ktorý typ strednej školy povedú ich kroky ďalej a ktorým smerom v rámci povolania sa budú v ďalších rokoch uberať.

V príspevku sme sa zamerali na poskytovanie kariérového poradenstva na základných školách, ale aj na výchovných poradcov, ktorých jednou z činností a kompetencií je aj poskytovanie kariérového poradenstva žiakom, či už individuálnou alebo skupinovou formou. Ďalej sme sa venovali poskytovaniu kariérového poradenstva v Centrách pedagogicko-psychologického poradenstva a prevencie. Poukázali sme na výsledky celoslovenského prieskumu, ktorý prebiehal práve v týchto CPPPaP v oblasti kariérového poradenstva a bol publikovaný v roku 2011.

Použitá literatúra

1. Centrum pedagogicko-psychologického poradenstva a prevencie Martin. [online]. [cit.2017-12-07]. Dostupné na internete: <http://www.cpppapmartin.sk/karierove-poradenstvo.html>.
2. GABURA, J. 2013. *Teória a proces sociálneho poradenstva*. Bratislava: IRIS, 2013. 307 s. ISBN 978-8-892238-927.
3. GANDELOVÁ, T. – THOLTOVÁ, J. 2007. *Sprievodca budovaním kariéry alebo zober život do vlastných rúk.* 1. vyd. Tvrdošín: OZ Informačné centrum mladých, 2007. 87 s. ISBN 978-80-967747-8-4.
4. IHNACÍK, J. 2013. *Kariérový poradca v poradenskej teórii a praxi.* 1. vyd. Bratislava: Metodicko - pedagogické centrum, 2013. 65 s. ISBN 978-80-8052-508-8.
5. IHNACÍK, J. – ŠPITKA, J. – PAULOVÁ, M. *Košický model kariérneho poradenstva pre stredoškolákov.*[online]. Košice: CPPP Košice, 2007. 254 s. [cit. 2017-12-06]. Dostupné na internete: <http://www.kpppke.eu/zbornik3.pdf>.
6. *Kariérové poradenstvo v rezorte školstva a jeho interdisciplinárne súvislosti - tradícia, aktuálny stav, perspektívy.* Zborník príspevkov z II. poradenských dní v Slovenskej republike s medzinárodnou účasťou 23.-25.marec 2011. Dolný Kubín: CPPPaP a Výskumný ústav detskej psychológie a patopsychológie v Bratislave, 2011. 214 s. ISBN 978-80-970806-5-5.
7. KIKA, M. – VETRÁKOVÁ, M. 2007. *Kariérové poradenstvo (Metodická príručka).* 1. vyd. Banská Bystrica: Univerzita Mateja Bela, Ekonomická fakulta, 2007. 105 s. ISBN 978-80-8083-355-8.
8. LEPEŇOVÁ, D. – HARGAŠOVÁ, M. 2012. *Kariéra v meniacom sa svete (Kariérová výchova a kariérové poradenstvo pre žiakov).* 1. vyd. Bratislava: Metodicko-pedagogické centrum v Bratislave, 2012. 80 s. ISBN 978-80-8052-407-4.
9. MAJER, P. 2006. *Výchovný poradca v školskom systéme pedagogicko – psychologického poradenstva* (metodicko-informačný materiál pre výchovných poradcov stredných škôl v zriaďovateľskej pôsobnosti Žilinského samosprávneho kraja). Žilina: Žilinský samosprávny kraj, odbor školstva, 2006. 23 s. ISBN neuvedené. Dostupné na internete: <http://www.spssza.sk/download/f4d9d66c-2010-01-31.pdf>.
10. MARKOVIČ, D. 2015. *Kariérové poradenstvo v prostredí vysokých škôl na Slovensku.* 1. vyd. Ružomberok: VERBUM, 2015. 127 s. ISBN 978-80-561-0264-0.
11. MATULA, Š. 2006. Základné východiská a znaky koncepcie pedagogicko-psychologického poradenského a otázky jeho implementácie do praxe. In *Efektívna prevencia pred nezamestnanosťou začína kariérovou výchovou a kariérovým* poradenstvom *v školách a školských zariadeniach* [online]. Bratislava: SAIC, 2006. [cit. 2017-12-06]. Dostupné na internete: <http://web.saaic.sk/nrcg_new/doc/Zbornik/22_Kap-6.1.pdf>. 297 – 311.
12. NOVOTNÁ, A. – HOLÍKOVÁ, B. Sociálne poradenstvo. In: *Metódy a metodika sociálnej práce.* Ružomberok: Verbum, 2016. 259 s. ISBN 978-80-561-0400-2. s. 186.
13. ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD). 2004. *Career guidance* (A handbook for policymakers). Paris: OECD/European Communities, 2004. 79 s. ISBN 9264015191.
14. RIEDLMAJER, R. 2008. Inovatívne metódy kariérového poradenstva. In: *Výchovný poradca na školách v súčasnosti.* Zborník z II. ročníka výročnej konferencie o vzdelávaní. Trnava: Mestský úrad Trnava, 2008. ISBN neuvedené. s. 65-72.

15. Zákon NR SR č. 245/2008 Z. z. o výchove a vzdelávaní (školský zákon) a o zmene a doplnení niektorých zákonov.

Kontaktné údaje
Mgr. Alena Koláriková
Katedra sociálnej práce, Pedagogická fakulta
Katolícka univerzita v Ružomberku
Hrabovská cesta 1
03401 Ružomberok
tel.: 0910 153 410
mail: alenka.kovalanova@gmail.com

HIERARCHIA PRÁVNEHO PORIADKU

THE HIERARCHY OF THE LEGAL ORDER

Veronika Miková

Abstrakt

Hoci súčasná právna veda upiera pozornosť na usporiadanie právnych noriem v podobe siete, predkladaný príspevok je zameraný na pripomenutie hierarchickej výstavby právneho poriadku. Pozornosť sústreďuje predovšetkým na príčiny hierarchického usporiadania právnych noriem. Hierarchická výstavba právneho poriadku je priamo prepojená na princíp právnej istoty, ktorý predstavuje istotu o práve, a zároveň istotu prostredníctvom práva.

Klíčová slova: *hierarchia, právna norma, prameň práva*

Abstract

While legal science currently pays attention to the system of legal norms in the form of a network, the presented contribution is focus on recalling the hierarchical construction of the law. The focus is mainly on the causes of the hierarchical construction of legal order. The hierarchical construction of the law is directly linked to the principle of legal certainty, which includes certainty about the law and certainty through the law.

Key words: *hierarchy, legal norms, sources of law*

1. PROBLÉM HIERARCHIE

Právne poriadky sú ustanovené viacdimenzionálne, tzn. obsahujú normy rôznej právnej sily. Predstava hierarchie noriem zahŕňa v sebe ďalšiu predstavu, a to, že jedna norma plynie z druhej. Inými slovami nižšia norma plynie, resp. odvádza sa z vyššej normy. Tým je daný vzťah právnych noriem. Pokiaľ hovoríme o vzťahu týchto noriem z obsahového hľadiska, vyššia norma je nevyhnutne obsahovo širšou ako nižšia norma. V takom prípade je nižšia norma vo vyššej obsiahnutá.

Z toho, že širšia norma v sebe zahŕňa tiež konkrétnejšiu normu vyplýva, že konkrétnejšia norma nemôže odporovať obsahovo širšej, a to znamená, že je na hierarchicky nižšom stupni. Táto konkrétnejšia norma platí preto, že je obsiahnutá vo vyššej, obsahovo širšej norme, v ktorej spočíva dôvod jej platnosti.[1]

Uvedené platí z obsahového hľadiska. Okrem obsahového hľadiska je možné vzájomný vzťah noriem vnímať aj z hľadiska delegačného. V takom prípade môžeme pojem norma nahradiť pojmom normotvorca. Vyššia norma, resp. normotvorca deleguje nižšieho normotvorcu k vydaniu nižšej normy. Dôvodom platnosti nižšej právnej normy a tým, čo determinuje jej zaradenie v hierarchii je delegácia obsiahnutá vo vyššej norme, resp. daná vyšším normotvorcom. Inými slovami dôvodom platnosti nižšej právnej normy v tomto prípade nie je to, že je obsahovo zahrnutá vo vyššej norme, ale práve zmocnenie dané nižšiemu normotvorcovi vyšším normotvorcom. Čo znamená, že norma je vyššia a iná je nižšia?[2]

Z obsahového hľadiska môže vyššia sila normy znamenať, že nižšia (konkrétnejšia) norma je svojim obsahom implikovaná v norme vyššej (obsahovo širšej). Tento ich vzťah logicky vylučuje aby medzi nimi existoval rozpor. Pre toto konštatovanie je však nevyhnutné, aby

[1] WEYR, F. Teorie práva; editor Ondřej Horák; úvodní studii napsal Miloš Večeřa. 2015. s. 125

[2] Tamtiež.

medzi normami existoval uvedený obsahový vzťah. Konkrétnejšia, a teda nižšia norma musí aspoň čiastočne obsahovo vyplývať z vyššej normy.
Vyššia hodnota normy však môže znamenať aj taký vzťah k nižšej norme, že táto nižšia norma nesmie odporovať vyššej bez ohľadu na to, ktorá z nich má širší obsah. Tu vzniká rozlíšenie prvotných a druhotných noriem, medzi ktorými existuje nie obsahový, ale delegačný vzťah. Túto myšlienku jasne pochopíme, ak pojem norma nahradíme pojmom normotvorca. Vôľa nižšieho normotvorcu nesmie odporovať vôli vyššieho normotvorcu. Inými slovami nižší normotvorca musí sa v rámci svojej normotvorby držať rozsahu stanoveného vyšším normotvorcom.
Slovami Františka Weyera *„je nemyslitelné, aby nižší, delegovaný normotvůrce projevoval při normotvorbě vůli, od vůle vyššího normotvůrce obsahově odlišnou – leda že by k něčemu takovému byl vyšším normotvůrcem výslovně zmocněn.“*[3]
Z toho čo sme doteraz k stupňovitej výstavbe právneho poriadku uviedli vyplýva, že uvedená štruktúra usporiadania právnych noriem má tvar pyramídy, kde na vrchole musí stáť norma, ktorá svoju platnosť neodvodzuje (ani z obsahového, ani z delegačného hľadiska) od inej normy. Jej platnosť, hodnota, či relevancia je predpokladaná.
Ak má byť určitá mnohosť právnych noriem jednotná a tvoriť jednotný celok, musí byť predpokladaná iba jedna najvyššia norma, z ktorej ostatné normy (formálne) čerpajú svoju relevanciu, svoju hodnotu. Z uvedeného vyplýva, že je nemožné aby jednotný právny poriadok mal dve alebo viac súčasných a na sebe nezávislých najvyšších noriem. Tým by bola ohrozená jednotnosť tohto právneho poriadku.[4]
Pre terminologickú presnosť má význam sa pýtať, či pojem právna norma môžeme nahradiť pojmom prameň práva. Ak chápeme prameň práva vo formálnom zmysle, potom prameň práva je forma, v ktorej nachádzajú svoje vyjadrenie platné právne normy. Norma je obsah, ktorý je stanovený vo forme, ktorou je prameň práva. Z uvedeného dôvodu sa preto domnievam, že pojem právna norma môžeme v úvahách o hierarchii právnych noriem pokojne nahradiť pojmom prameň práva, pretože ak obsah (norma) získava určité postavenie v hierarchii, potom rovnaká hierarchia vzniká usporiadaním foriem (prameňov), v ktorých sa tento obsah nachádza.
V jednom prameni (resp. v jednej forme) však môžu byť obsiahnuté viaceré právne normy a nie je vylúčené, že ich právne relevancie sú rôzne.
Na tomto mieste je potrebné vysvetliť terminologický rozdiel, ktorý vidíme v rozlíšení pojmov právna sila a právna relevancia. Pokiaľ ide o právnu silu konkrétneho predpisu, tá môže byť determinovaná obsahovým alebo delegačným vzťahom k inému právnemu predpisu. Pokiaľ však ide o právnu relevanciu, tá môže byť okrem uvedených kritérií determinovaná tiež predmetom právnej regulácie. Uvedené si možno lepšie predstaviť na príklade vzťahu Ústavy Slovenskej republiky a ústavných zákonov. Ústava Slovenskej republiky má rovnakú právnu silu ako ústavné zákony. Napriek tomu ústave priznávame vo vzťahu k ústavným zákonom postavenie *primus inter partes*[5], ktoré však z textu ústavy nemôžeme vyvodiť. Právna sila Ústavy a ústavných zákonov je preto rovnaká, avšak ich právna relevancia je rôzna. Dôvodom je (okrem iného) predmet právnej regulácie, ktorý je v rámci ústavy charakteristický komplexnosťou, kým ústavné zákony regulujú „iba“ určitú časť z predmetu ústavno-právnej regulácie. Podobným príkladom môže byť existencia materiálneho jadra ústavy, keď viacero právnych noriem je obsiahnutých v spoločnom prameni – ústave, a preto ich právna sila je rovnaká, avšak predsa existujú niektoré z nich, ktoré majú vyššiu hodnotu.

[3] Tamtiež s. 126
[4] Tamtiež s. 102
[5] Pozri napr. BREICHOVÁ LAPČÁKOVÁ M.: Ústava a ústavné zákony. Bratislava: Kalligram, 2013. ISBN 978-80-8101-727-8.

Osobitný zmysel má otázka, či súčasťou materiálneho jadra sú aj ustanovenia chrániace základné práva a slobody. Ide vo svojej podstate o otázku, či bez ohľadu na to, v akej forme sa norma (obsah) nachádza, ak sú obsahom formy právne normy chrániace základné práva a slobody musí mať táto právna norma vyššiu relevanciu ako iná norma, hoci aj obsiahnutá v tom istom prameni. Na príklade základných práv a slobôd bude konkrétne táto otázka znieť, či právne normy upravujúce základné práva a slobody majú byť vo vzťahu k ostatným právnym normám charakterizované ako právne normy s vyššou relevanciou, a to bez ohľadu na to, v akom prameni práva sa právne normy upravujúce základné práva a slobody nachádzajú.

2. HIERARCHIA VNÚTROŠTÁTNYCH PRAMEŇOV PRÁVA

Na vrchole vnútroštátnej hierarchie prameňov práva stojí ústava. Toto konštatovanie je na tomto mieste dôležité nie preto, že by sme chceli opakovať dobre známe definície, ale s úmyslom zdôrazniť, že ide o naozaj tradičné (možno až dogmatické) chápanie ústavy ako právnej normy s najvyššou právnou silou.

Z obsahového hľadiska sa ako determinant na určenie pozície v hierarchii prameňov práva javí ako kritérium obsah („širokosť“) danej právnej normy. V prípade ústavy nepochybne hovoríme o právnych normách do značnej miery všeobecných a širokých. Všetky ďalšie právne normy, ktoré sú súčasťou právneho poriadku z ústavy obsahovo vyplývajú, resp. sú z nej obsahovo odvoditeľné, a preto sú v hierarchii nižšie umiestnené.[6]

Z hľadiska delegačného na vrchole pyramídy prameňov práva stojí norma, ktorá svoju platnosť neodvodzuje zo žiadnej inej právnej normy. Aj z tohto pohľadu ústava na vrchol pyramídy patrí, keďže nevieme nájsť inú normu (resp. formálny prameň práva), ktorá by obsahovala zmocnenie pre prijatie ústavy. Jej platnosť, hodnota, či relevancia je predpokladaná.

Logickým dôsledkom uvedeného je, že za ústavou budú nasledovať tie normy, resp. pramene práva, ktoré z nej buď obsahovo vyplývajú, alebo je medzi nimi a ústavou delegačný vzťah. V právnych poriadkoch sa tradične za ústavou v hierarchii uvádzajú medzinárodné zmluvy, zákony, podzákonné predpisy.

3. ZMYSEL HIERARCHICKEJ VÝSTAVBY

Hierarchická výstavba právneho poriadku je priamo prepojená s požiadavkou jeho jednotnosti. Naším úmyslom je zdôrazniť výhody hierarchického usporiadania právneho poriadku, ktoré spočívajú v zaistení jednotnosti a vnútornej bezrozpornosti právneho poriadku. Úroveň jednotnosti a bezrozpornosti právneho poriadku má priamy vplyv na úroveň právnej istoty subjektov práva.

Právny poriadok je súbor právnych noriem, ktorý tvorí jednotu. Okrem toho, že sa vyznačuje jednotnostnosťou, vyznačuje sa tiež vnútornou diferencovanosťou.[7] Právny poriadok musí predstavovať v sebe uzavretú jednotku, čo znamená, že všetky jeho súčasti sú odvoditeľné od jedinej najvyššej normy. Odvoditeľnosť tu znamená, že z tejto najvyššej normy ostatné normy čerpajú svoju platnosť.[8]

Jednotou práva rozumieme predovšetkým jeho konzistentnosť, ktorá spočíva v jeho:

- logickej bezrozpornosti, ktorá predstavuje požiadavku aby si platné normy vzájomne neodporovali,
- integrovanosti, ktorá je zaisťovaná zásadami právnej kultúry, princípmi právneho štátu ako všeobecnými regulatívnymi ideami a vodiacimi normatívnymi zásadami, od ktorých sa celý právny systém odvíja,

[6] K tomu pozri bližšie WEYR, F. Československé právo ústavní. 1937. s. 14
[7] VEČEŘA, M. a kol.: Základy teorie práva: multimediální učební text. 2008. s. 11
[8] WEYR, F. Československé právo ústavní. 1937. str. 12

- úplnosti, ktorá predpokladá, že právny poriadok je bez medzier,
- hierarchickom usporiadaní, spočívajúcom v predstave pyramidálneho usporiadania s jedným vrcholom, ktorý predstavuje najvyššia právna norma.[9]

Hierarchické usporiadanie právneho poriadku je preto jedným zo základných predpokladov jednotnosti právneho poriadku.

Jedným z princípov, z ktorých požiadavka jednotnosti právneho poriadku vyplýva je nepochybne princíp právnej istoty. Právny poriadok musí byť jednotný a bezrozporný, čo znamená, že nemôže platiť „A" ak zároveň platí „non A". Uvedená rovnica znamená pre subjekt práva istotu v tom, že si vždy môže byť vedomý svojich práv a povinností. Ak mu právna norma stanovuje povinnosť „A", tak mu z inej právnej normy nemôže vyplývať zákaz správať sa podľa „A". Predpokladom právnej istoty je predovšekým to, že právo je zistiteľné.

4. ZÁVER

Princíp právnej istoty vyžaduje, aby sa používali čo najurčitejšie normy, a aby normy mali maximálnu mieru účinnosti. Tieto ciele nemožno dosiahnuť bez riadneho prijatia a účinnosti. Z uvedeného vyplýva, že právnu istotu nemožno dosiahnuť inak než pozitivitou.[10]

Princíp právnej istoty však možno vnímať ako istotu o práve alebo tiež ako istotu prostredníctvom práva.

Na tomto mieste relevantným faktorom je aj stretávanie právnych systémov, a to vnútroštátnych, medzinárodných a Európskej únie s ich konfliktnými nárokmi na prednosť.[11] Nároky medzinárodného a európskeho práva na prednosť pred vnútroštátnym právnym poriadkom spôsobujú, že pyramida, a teda hierarchia právnych noriem, sa mení na sieť. Rozhodujúcimi pre správnu aplikáciu práva sa tak stáva poznanie vzájomných vzťahov medzi jednotlivými systémami práva, ktoré však nie sú dostatočne zreteľne vymedzené. Uvedené aktuálne pociťujeme vo vzťahu k základným právam, ktorých prostriedky ochrany nachádzame v práve vnútroštátnom, medzinárodnom aj práve EÚ. V tejto súvislosti sa o právnej istote hovorí tiež v kontexte dotvárania práva rozhodovacou činnosťou súdov. O právnej istote už neuvažujeme len vo vzťahu k právním textom, ale aj o právnej istote vo vzťahu k ich interpretácii, či dokonca interprétom.[12]

Použitá literatura

1. ALEXY, R.: *Právní jistota a správnost.* In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 123. ISBN 9788073803889
2. BREICHOVÁ LAPČÁKOVÁ M.: *Ústava a ústavné zákony*. Bratislava: Kalligram, 2013. ISBN 978-80-8101-727-8.
3. KYSELA, J.: *Jaká jistota v měnícím se světe?*. In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 163. ISBN 9788073803889
4. ONDŘEJKOVÁ J. : *Právní jistota a metodologie interpretace evropského práva.* In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 272. ISBN 9788073803889.
5. RAITIO J.: *The principle of legal Certainty.* In EC Law. Boston – Londýn: Kluwer Academic Publishers, 2003. ISBN 1-4020-1217-9.

[9] VEČEŘA, M. a kol.: Základy teorie práva: multimediální učební text. 2008. s. 11

[10] ALEXY, R.: Právní jistota a správnost. In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 123

[11] K tomu pozri bližšie Kysela, J.: Jaká jistota v měnícím se světe?. In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 163 a nasl.

[12] Na problém deficitu právnej istoty v rámci viacúrovňovej ochrany základných práv upozorňujú niektorí autori, pozri napr. RAITIO J.: The principle of legal Certainty in EC Law. Boston – Londýn: Kluwer Academic Publishers, 2003, a tiež ONDŘEJKOVÁ J. : Právní jistota a metodologie interpretace evropského práva. In: GERLOCH, A. a kol. (eds.): Metodologie interpretace práva a právní jistota. 2012. s. 272

6. VEČEŘA, M. a kol.: *Základy teorie práva: multimediální učební text.* 2008. ISBN 9788021046832.
7. WEYR, F.: *Československé právo ústavní.* 1937.
8. WEYR, F.: *Teorie práva*; editor Ondřej Horák; úvodní studii napsal Miloš Večeřa. Praha: Wolters Kluwer, 2015. ISBN 9788075520005..

Kontaktní údaje
Mgr. Veronika Miková
Univerzita Pavla Jozefa Šafárika v Košiciach, Právnická fakulta
Kováčska 26, 040 75 Košice
Tel: 0908 366 695
email: veronika.mikova@student.upjs.sk

FINANCE A ÚČETNICTVÍ

FINANCING AND ACCOUNTING

NUMBER OF PAPERS: 11



PROBLEMATIKA VYKAZOVÁNÍ ZISKU A CAPEX

PROBLEMS OF PROFIT AND CAPEX REPORTING

Šárka Findová, Jan Lhota

Abstrakt

Příspěvek má za cíl poukázat na různé chápání vykazování zisku, resp. ukazatelů výkonnosti podniku přes hospodářský výsledek, neboť nemusí být vykazován zisk pouze ze základního rozdílu mezi výnosy a náklady, ale existuje několik ukazatelů, které prokazují tvorbu zisku a používají různé postupy výpočtu. Protože mnohé z ukazatelů pracují s výkazy Capex, je v příspěvku poukázáno na možnost chybovosti, resp. nepřesností ve vykazování Capexu.

Klíčová slova: *zisk, Capex, ukazatele, reporting*

Abstract

Paper shows a different perception of profit reporting, respectively business performance ratios above the economic outturn, as there is no need to report profit only from the basic income and cost difference, but there are several indicators, which demonstrate profit generation and use different calculation methods. Because many of the indicators work with Capex statements, the contribution points to the possibility of error, respectively misstatements in Capex reporting.

Key words: *profit, Capex, indicators, reporting*

1 ÚVOD

Podle ekonomické teorie je zisk kladný rozdíl mezi výnosy a náklady. V reálném světě se však jako „zisk“ označuje celá řada naprosto odlišných ekonomických ukazatelů: EAT, EBT, EBIT, EBITDA, OIBDA, NOPAT. Zisk neříká nic o tom, jak se podniku daří nebo co získal. Zisk porovnává účetní náklady s účetními výnosy, které mohou být často zkresleny řadou faktorů jako je časové hledisko (rozdíl mezi náklady a výdaji v čase). Zisk tak bohužel nemusí ještě nic vypovídat o tom, kolik daný podnik skutečně vydělal, natož pak o tom, jak se změnila jeho hodnota anebo co přinesl svým majitelům. Zisk dokáží výrazně zkreslit i jednorázové výnosy z prodeje nemovitostí, nákupy, opožděné dodávky atd. Na zisk je proto dobré pohlížet spíše jako na účetní položku, kterou je třeba vnímat v kontextu jiných ukazatelů jako je přidaná hodnota, celkové tržby, vlastní kapitál, atd.

Provozní výsledek hospodaření

Provozní výsledek hospodaření je zákonnou normou v České republice jasně definovaná hodnota povinně zveřejňovaná ve Výkazu zisku a ztráty. Tento údaj nám vlastně říká, kolik společnost vydělala svou běžnou činností (tj. tím, co obvykle dělá, vyjma ziskových/ztrátových operací na finančních trzích) bez uvážení daně z příjmu právnických osob.

Operating Income

S obdobou provozního výsledku hospodaření se lze setkat například i v USA, a to v podobě tzv. Operating income. K jeho výpočtu však vede poněkud jiný vzorec respektující americké účetní standardy. Operating income se tak vypočítá jako rozdíl hrubého výnosu (gross income) neboli tržeb a provozních nákladů (operating expenses neboli OPEX), od kterého se

ještě odečtou odpisy. Operating income však oproti Provoznímu výsledku hospodaření nepočítá s daněmi.

Výsledek hospodaření za účetní období
Výsledek hospodaření získáme sečtením výsledku hospodaření za běžnou činnost mimořádným výsledkem hospodaření a odečtením řádku převod podílu na výsledku hospodaření společníkům

EAT (Earnings after taxes)
Jako EAT se označuje zisk po zdanění. To odpovídá českému Výsledku hospodaření za účetní období. Hodnota pro EAT a Výsledek hospodaření za účetní období je však závislá na účetních předpisech té které dané země.

EBT (Earnings before taxes)
Earnings before taxes neboli zisk před zdaněním se vypočítá v analogii českých účetních předpisů jako výsledek hospodaření za účetní období + daň z příjmů za běžnou činnost + daň z příjmů z mimořádné činnosti.

EBIT (Earning before interests and taxes)
EBIT coby zisk před úroky a zdaněním je asi nejčastěji využívaným finančním ukazatelem v anglofonních zemích. EBIT převedeno do českého prostředí lze získat jako EBT + nákladové úroky.

EBITDA (Earnings Before Interests, Taxes, Depreciation and Amortization)
EBITDA neboli zisk před úroky, zdaněním, odpisy a amortizací je dalším často používaným ukazatelem v anglofonních zemích, který však nerespektuje účetní standardy GAAP (Generally Accepted Accounting Principles). EBITDA se jako ukazatel velice často používal a používá u podniků, u kterých dosahují odpisy vysokých částek (např. telekomunikační operátoři). EBITDA je do českých podmínek poměrně těžko převoditelná, neboť amortizaci zakoupeného zboží u nás zohledňují právě odpisy. Pokud však připustíme, že odpisy a amortizace jsou totéž, můžeme EBITDA získat jako EBIT + Odpisy dlouhodobého nehmotného a hmotného majetku.

NOPAT (Net Operating Profit After Taxes)
NOPAT neboli čistý provozní zisk po zdanění je poněkud komplikovaným ukazatelem, a to i v anglofonní literatuře, která obsahuje dva různé vzorce. Ten první pracuje s přísně terminologickým přístupem, kdy od Operating Profit (což je často používaná alternativa k Operating Income) pouze odečte částku odvedenou na daních – tj. vynásobí jej závorku (1 – sazba DPPO) potažmo odečte částku zaplacenou na DPPO. Jiné zdroje zase hovoří o tom, že NOPAT nebere v úvahu CAPEX (Capital Expenditure) neboli náklady (a ani úroky) na dlouhodobý hmotný a nehmotný majetek.

České versus americké ukazatele zisku
Řada lidí v České republice velice často a ráda využívá termíny z anglofonních zemí povětšinou odvozené ze standardů GAAP k označení finančních ukazatelů uváděných v českém výkazu zisku a ztráty. Bohužel, jak jsme si ukázali výše, takovéto označování je nesprávné. A ještě více nesprávné je u velice populárních pojmů CAPEX a OPEX, které v české výsledovce nemají přímé protějšky. Některé podniky v České republice (obvykle se zahraničními vlastníky) řeší existující terminologický nesoulad tím, že ve své výroční zprávě zveřejňují rozvahu a výkaz zisku a ztráty podle českých i GAAP účetních standardů. V

takovém případě je pak EBIT skutečným EBITem a výsledek hospodaření před zdaněním skutečným výsledkem hospodaření před zdaněním. U společností, které však využívají jen jeden z účetních standardů, je však v každém případě nutná určitá aproximace, se kterou je nutné počítat v každém případě, i tehdy, kdy uvádíme vzorec pro přepočet, který nijak nezohledňuje to, co vše a jakým způsobem lze uznat jako daňový náklad apod.

2 ANALYTICKÝ A ÚČETNÍ POHLED PŘI VYKAZOVÁNÍ CAPEXU

2.1 Capex

Kapitálové výdaje známé jako Capex (Capital expenditures), jsou výdaje, které vznikají podniku, při pořízení dlouhodobého majetku, nebo jeho technického zhodnocení za účelem vytvoření budoucích přínosů (benefitů, zisku). Přínosy plynoucí z kapitálových výdajů přesahují účetní období skutečných výdajů vynaložených na pořízení majetku. Dotčený majetek může být hmotný nebo nehmotný. Kapitálové výdaje zahrnují vše od nákladů vynaložených na instalaci fixního majetku, právní náklady na jeho získání, rozšíření nebo zlepšení stavu dlouhodobého majetku. Tento druh výdajů je uveden v rozvaze na straně aktiv.
Příklad kapitálových výdajů (Capex): nákup nábytku za 50.000,- Kč, stroj za 10.000.000,- Kč, výdaje 10.000,- Kč a 40.000,- Kč na instalaci a modernizaci stroje. Všechny tyto příklady představují pro společnost Capex. Dokonce i náklady na modernizaci a instalaci budou kvalifikovány jako kapitálové výdaje.

2.2 Opex

Provozní výdaje a provozní náklady známé jako Opex (Operating expentiditures), jsou výdaje, které musí podnik vynaložit na provozování podniku a jeho každodenní provoz. Výhody plynoucí z těchto výdajů jsou, že byly vyčerpány ve stejném účetním období. Tento druh výdajů je uveden ve výkazu zisku a ztráty na straně nákladů.
Příklad provozních výdajů (Opex): tisk, telefon, elektřina, údržba a opravy, pojištění, ….
Při diskusích o výdajích ve společnosti často slyšíte odkaz na Capex a Opex, a přestože se oba týkají peněz vyplacených ze společnosti, mají velmi odlišné významy. Pochopení různých významů je důležité pro jasný obraz o tom, na co se každý z nich odkazuje.
Capex je široce užívané zkrácení termínu kapitálové výdaje a vztahuje se na výdaje, které podnikům vznikají v budoucnu. Nákupy nových budov nebo strojů by byly považovány za hlavní, protože to jsou výdaje, které vznikají společnosti, a které by měly v budoucnu přinést prospěch. Kromě nákupu nových zařízení může společnost Capex také odkazovat na zlepšení nebo doplnění stávajících aktiv, které podnik drží.
Význam Capexu v podnikatelských rozpočtech je, že dokazuje, kolik podnik vynakládá na budoucí investice. To je důvod, proč se rozpočty kapitálových výdajů ve společnostech řídí analytiky tak detailně. Kapitálové výdaje jsou také číslem, které se může každým rokem výrazně lišit, takže je mnohem důležitější sledovat kapitálové výdaje společnosti v určitých časových obdobích. Přiměřené kapitálové výdaje se skutečně liší od průmyslu k průmyslu, přičemž některé průmyslové odvětví (tj. ropa a plyn) vyžadují významné kapitálové investice a jiné (tj. maloobchod) vyžadují daleko nižší investiční kapitál.
Opex je široce používaným zkrácením termínu provozní výdaje a vztahuje se na výdaje, které podnikatelská činnost vynakládá v každodenním provozu. Provozní náklady obvykle nemají budoucí přínos a zahrnují výdaje jako mzdy, inženýrské služby a nájemné. Obecné opravy a údržba budov a zařízení jsou také považovány za provozní náklady za předpokladu, že nedošlo k vylepšením, které mají vliv na efektivitu nebo životnost aktiva.
Význam Opexu spočívá v tom, že nejsou získány žádné budoucí výhody, jsou to skutečně náklady na podnikání a je třeba je řídit. Společnost může snadno skončit ve ztrátě, pokud je jejich Opex příliš vysoký a vyčerpá všechny své zisky. Opex se také liší od průmyslu k

průmyslu, takže je důležité porovnat Opex čísla společnosti, kterou sledujete s čísly ostatních podniku podobné úrovně v daném odvětví průmyslu.

2.3 Účetnictví a daňové zacházení

Opex a Capex se významně liší v tom, jak jsou zpracovávány pro účetní a daňové účely. Kapitálové výdaje jsou typicky vykázány jako aktiva v rozvaze a jejich hodnota je účtována do nákladů několik let prostřednictvím odepisování. Provozní výdaje jsou okamžitě vykázány ve výkazu zisku a ztráty. Pro daňové účely je řešení často stejné (s občasnými výjimkami u některých typů kapitálu nebo provozních výdajů).

Výsledkem jsou konkurenční tlaky u podniků, pokud jde o volbu, zda si některé náklady vykázat jako kapitál nebo výdaje. Ke zlepšení čistého finančního zisku společnosti existuje podnět k tomu, aby se náklady považovaly za Capex rozložily se na několik let. Na druhou stranu je snížení výše daní za rok motivací proč považovat výdaje za Opexy, tj. rozpoznat náklady a snížit celkové daňové zatížení daného roku. Společnosti neustále rozvažují tato rozhodnutí v případech, kde existuje prostor pro účetní volbu a řešení není výslovně uvedeno.

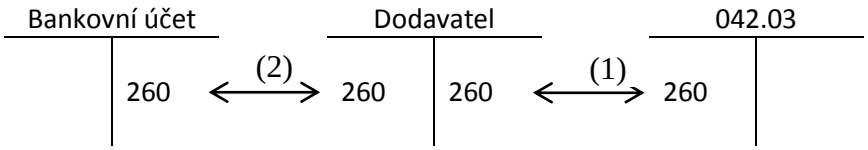
Tab 1. Přehled pořizovacích účtů z rozvahy podniku

041.01	Pořízení drobného NHM - licence
041.02	Pořízení drobného NHM - ostatní
041.03	Pořízení DNHM – interní systémy
041.04	Pořízení DNHM – externí systémy
042.01	Pořízení drobného HM – IT majetek
042.02	Pořízení drobného HM - ostatní
042.03	Pořízení DHM – interní systémy
042.04	Pořízení DHM – externí systémy
042.05	Pořízení DHM – ostatní IT
042.06	Pořízení DHM – ostatní

3 UKÁZKA POŘÍZENÍ SERVERU, OPRAVA ZAÚČTOVÁNÍ A VLIV NA REPORTING

Jako názorný příklad uvedeme situaci, kdy je pořízen server v hodnotě 260 tisíc korun, který byl zakoupen pro fungování externích systémů (účet 042.04), ale byl chybně zaúčtován na účet, kam se účtuje pořízení interních systémů (042.03). Takovouto chybu je možné opravit prakticky několika způsoby, přičemž mohou být správně z hlediska účetního, ale ne zcela správně z hlediska analytického, resp. výkaz, se kterým pracuje analytik, může být chybný, neboť systémový report, použitý pro analytický výkaz, je sestaven určitým způsobem tak, aby vytáhl data z určitého účtu a z určitého sloupce účetního výkazu a zde je právě prostor pro chybné vykazování, pokud není nastaven jiný kontrolní mechanismus.

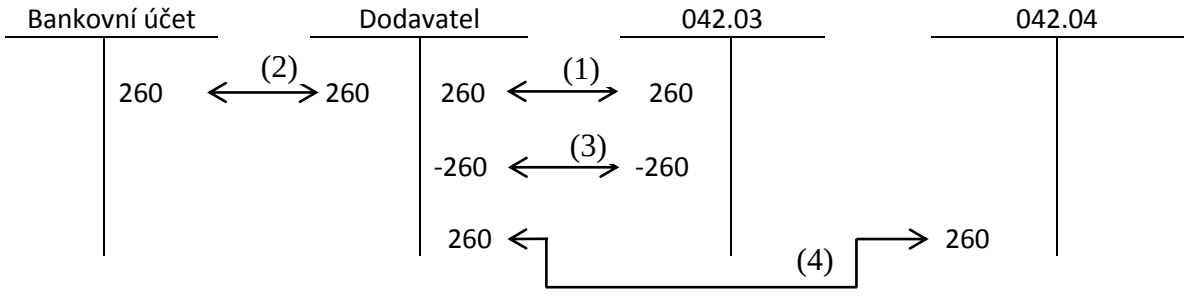
Zaúčtování pořízení serveru



(1)…zaúčtování dodavatelské faktury na špatný účet
(2)…zaplacení dodavatelské faktury

Ideálním způsobem pro opravu zaúčtování je samozřejmě stornování původního zaúčtování faktury a zaúčtování celého hospodářského případu znovu. Toto je opravdu logicky nejvhodnější způsob, bohužel ale v praxi komplikovaný, neboť zaúčtováním faktury je vygenerováno unikátní číslo interního dokladu, se kterým je jednak spárovaná platba z bankovního systému a jednak toto číslo faktury může být dále vázáno na další systémy, kde probíhá další párování, odsouhlasení a generování dalších číselných řetězců a vazeb. Máme na mysli například objednávkový systém, kdy je daná objednávka po schválení všemi zainteresovanými osobami přenesena automaticky a s kódem speciální číselné řady do účetního systému. Účetní poté, co obdrží fyzicky fakturu za zboží nebo službu od dodavatele, zanese tuto fakturu do účetního systému na základě automaticky přenesené objednávky z objednávkového systému a z účetního systému pak odchází zpět do objednávkového systému informace (faktura), která nese další unikátní číslo jiné číselné řady a všechny náležitosti objednávky. Prakticky se jedná o několik číselných řad, přes které spolu oba systémy pracují a jejichž informace propojují.
Hospodářské operace je nutné kontrolovat na tzv. těsnost souhlasu mezi dokladováním a plněním, tedy tím co je fakturováno a tím co bylo skutečně dodáno. Pro průkaznost účetnictví má význam přezkušování hospodářských operací z hlediska formální a věcné správnosti. Věcnou správnost obvykle ověřují účastníci účetního případu (ti, co účetní případ nařídili nebo schválili = objednatel produktu), formální správnost obvykle kontroluje účetní (kontroluje náležitosti dokladu – název dodavatele, IČO, DIČ, DPH,…). Je to logické, neboť účetní nerozumí např. technickým specifikacím serveru a naopak pracovník IT oddělení nemusí znát povinné náležitosti účetního dokladu a proces zaúčtování.
V tomto případě tedy udělal objednatel chybu a zadal objednávku, ze které vyplývalo, že se jedná o nákup serveru pro provoz interního systému. Jako objednatel potvrdil věcnou správnost hospodářské operace a faktura byla zaúčtována.

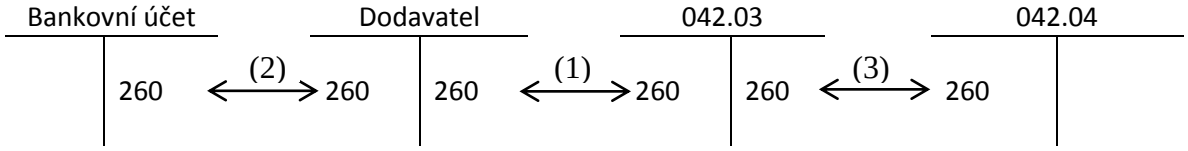
Ideální způsob opravy – storno



(1)…zaúčtování dodavatelské faktury na špatný účet
(2)…zaplacení dodavatelské faktury
(3)…storno

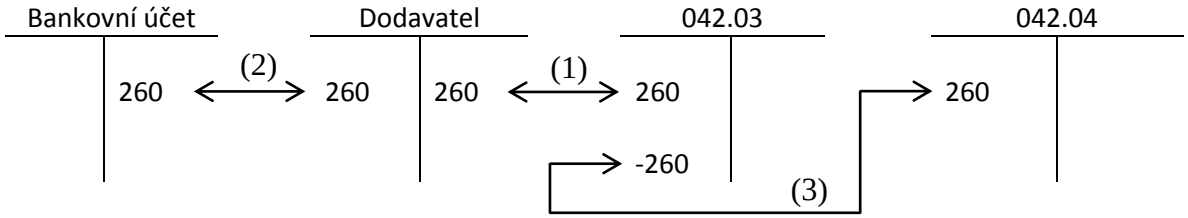
(4)… zaúčtování dodavatelské faktury na správný účet

Pokud tedy není možné storno hospodářské operace, nabízejí se další dva způsoby, které však mají vliv na správnost analytického výkazu.
První způsob opravy chybného zaúčtování je ten, při kterém je proveden podvojný zápis ve smyslu kladné hodnoty na straně Dal chybného účtu a kladné hodnoty na straně Má dáti správného účtu (3).



(1)…zaúčtování dodavatelské faktury na špatný účet
(2)…zaplacení dodavatelské faktury
(3)…první způsob opravy

Druhý možný způsob opravy chybného zaúčtování je ten, při kterém je proveden podvojný zápis ve smyslu záporné hodnoty na straně Má dáti chybného účtu a kladné hodnoty na straně Má dáti správného účtu (4).



(1)…zaúčtování dodavatelské faktury na špatný účet
(2)…zaplacení dodavatelské faktury
(3)…druhý způsob opravy

Z účetního pohledu tedy není problém, pořizovací účet 042.03 je nulový a hodnota serveru 260 tisíc je na správném účtu 042.04.
Problém však nastává v případě, kdy je analytický report sledování přírůstků kapitálových výdajů (Capex) nastaven tak, že stahuje data pouze ze stran Má dáti pořizovacích účtů. Pokud totiž tento report nastavuje osoba neznalá účetního procesu, resp. neznalá všech možností pro opravy účetních dokladů, vytvoří právě takový report, který stáhne data jen ze stran Má dáti, neboť je logické, že jen a pouze na straně Má dáti jsou přírůstky, protože se jedná o účet aktivní (naopak u pasivních účtů jsou přírůstky na straně Dal). Logický je tento postup také z toho důvodu, že na straně Dal pořizovacích účtů se projevuje majetek zařazený, tj. zaúčtovaný na účty 01xx a 02xx.
V tomto případě jediný správný postup opravy je druhý způsob – záporná hodnota hospodářské operace na straně Má dáti chybného účtu a kladná hodnota na straně Má dáti správného účtu. Jinak bohužel může dojít k tomu, že jsou vykazovány nesprávné hodnoty, tj. může například dojít k duplicitě vykazovaných hodnot.

Použití prvního způsobu opravy:

042.03	
260	260
320	
50	
46	
210	
886	260

042.04	
260	
260	

V uvedeném příkladu to vypadá, že přírůstek kapitálových výdajů v určitém období je 1.146 (= 886 + 260).

Při použití druhého způsobu opravy:

042.03	
260	
-260	
320	
50	
46	
210	
626	0

042.04	
260	
260	

V uvedeném příkladu je jasné, že přírůstek kapitálových výdajů v určitém období je 886 (= 626 + 260).
Cílem příspěvku bylo poukázat na různé chápání vykazování zisku, resp. ukazatelů výkonnosti podniku přes hospodářský výsledek. Bylo uvedeno několik ukazatelů, které prokazují tvorbu zisku a různé postupy výpočtu. Mnohé z ukazatelů pracují s výkazy Capex a Opex, jehož složení, obsah byl popsán a poukázáno na možnost chybovosti, resp. nepřesností ve vykazování Capexu.

Příspěvek byl podpořen grantem Studentské grantové soutěže ČVUT SGS17/178/OHK2/3T/12.

Použitá literatura

1. SYNEK, Miloslav a kol. Podniková ekonomika. 4. přeprac. vyd. Praha: C. H. Beck, 2006. 475 s. Beckovy ekonomické učebnice. ISBN 80-7179-892-4.
2. SCHOLLEOVÁ, Hana. Ekonomické a finanční řízení pro neekonomy. 1. vyd. [s.l.]: Grada Publishing, a. s., 2008. 256 s. ISBN 978-80-247-2424-9.
3. CONSTAND, Richard. University of West Florida [online]. 2001 [cit. 2010-08-17]. Calculation of Annual Incremental After Tax Cash Flows. Dostupné z: <http://uwf.edu/rco-nstand/GEB5874/T9-CapBud/Calculating%20Incremental%20Cash%20Flows.pdf>.
4. Investopedia. Investopedia [online]. 2010 [cit. 2010-08-17]. Operating Income. Dostupné z: <http://www.investopedia.com/terms/o/operatingincome.asp>.
5. Investopedia. Investopedia [online]. 2010 [cit. 2010-08-17]. Earnings Before Tax. Dostupné z: <http://www.investopedia.com/terms/e/ebt.asp>.
6. Earnings before interest and taxes. In Wikipedia : the free encyclopedia [online]. St. Petersburg (Florida) : Wikipedia Foundation, [cit. 2010-08-17]. Dostupné z: <http://en.wikip-edia.org/wiki/Earnings_before_interest_and_taxes>.

7. Ebitda. In Wikipedia : the free encyclopedia [online]. St. Petersburg (Florida) : Wikipedia Foundation, [cit. 2010-08-17]. Dostupné z WWW: <http://en.wikipedia.org/wiki/Ebitda>.
8. Investopedia. Investopedia [online]. 2010 [cit. 2010-08-17]. Operating Income Before Depreciation And Amortization - OIBDA. Dostupné z: <http://www.investopedia.com/terms/o/oibda.asp>.
9. NOPAT. In Wikipedia : the free encyclopedia [online]. St. Petersburg (Florida) : Wikipedia Foundation, [cit. 2010-08-17]. Dostupné z: <http://en.wikipedia.org/wiki/NOPAT>.
10. Investopedia [online]. 2010 [cit. 2010-08-17]. Net Operating Profit After Tax. Dostupné z: <http://www.investopedia.com/terms/n/nopat.asp>.
11. Není zisk jako zisk [online]. 2010 [cit. 2010-08-17] Dostupné z: http://www.businessvize.cz/financni-analyza/neni-zisk-jako-zisk
12. Capex & Opex [online] 2010 [cit. 2010-08-17] Dostupné z: https://www.accounting-capital.com/expenses/capex-and-opex/

Kontaktní údaje

Ing. Šárka Findová
Ing. Jan Lhota
České vysoké učení technické v Praze
Fakulta strojní
Ústav řízení a ekonomiky podniku
Karlovo nám. 13, Praha 2
email: sarka.findova@seznam.cz, jan.lhota@fs.cvut.cz

EXISTUJÍ ROZDÍLY NA ÚROVNI TRANSPARENTNOSTI HOSPODAŘENÍ ČESKÝCH NADACÍ?[1]

ARE THERE DIFFERENCES IN THE LEVEL OF TRANSPARENCY OF THE CZECH FOUNDATION´S MANAGEMENT?

Marek Jošt

Abstrakt

Příspěvek hledá odpověď na otázku, zda existují významné rozdíly na úrovni transparentnosti hospodaření nadací příjemců příspěvků z Nadačního investičního fondu ve srovnání s ostatními nadacemi bez těchto prostředků. Zvolená kritéria transparentnosti vycházejí z dnes již neúčinného zákona o nadacích a nadačních fondech. Výsledky provedené analýzy významné rozdíly mezi oběma skupinami nadací potvrdily a zároveň poukázaly na vyšší míru transparentnosti nadací příjemců příspěvků z Nadačního investičního fondu.

Klíčová slova: *Audit, Nadace, Nadační investiční fond, Transparentnost*

Abstract

The paper tries to answer the question whether there are significant differences in the level of transparency of the foundation´s management of foundations that have received contributions from the Investment Fund for Foundations compared with the foundations that have not received such contributions. The chosen criteria of transparency are based on the Act of Foundations and Endowment Funds that is not yet valid today. The results of the analysis confirmed significant differences between the two groups of foundations and pointed to a higher level of transparency of the foundations with contributions from the Investment Fund for Foundations.

Key words: *Audit, Foundation, Investment Fund for Foundations, Transparency*

1 ÚVOD

Dnešní společnost se potýká s narůstající hrozbou terorismu a možného zneužití neziskového sektoru k legalizaci výnosů z trestné činnosti a financování terorismu. Také z tohoto důvodu by měla být věnována zvýšená pozornost transparentnímu hospodaření neziskových organizací, mezi které se řadí i nadace. Jedna z cest, jak dosáhnout vyšší transparentnosti nadací spočívá ve vytvoření kvalitního právního rámce upravujícího jejich činnost. V poslední době jsme svědky uvolňování nadačního práva ve většině evropských zemí včetně České republiky, a proto si klade tento příspěvek za cíl posoudit vhodnost uvolňování nadační legislativy v návaznosti na závěry, které plynou z provedeného výzkumu.

2 TRANSPARENTNOST NADACÍ

S termínem transparentnost se lze v dnešní době setkat poměrně často, a to zejména v oblasti hospodaření veřejných institucí s veřejnými zdroji. Samotný pojem je poměrně široký a možná obtížně uchopitelný. Aby bylo možné posoudit úroveň transparentnosti konkrétního

[1] Tento článek je jedním z výstupů grantového projektu „Empirická racionalizace zásadních změn v evropské auditorské legislativě z pohledu auditorské profese v ČR (se zaměřením na vzdělávání v oblasti auditu, kvalitu auditu a problematiku oligopolu na auditorském trhu)“ evidovaného Interní grantovou agenturou VŠE v Praze pod číslem 33/2015.

subjektu, musí být nejprve vymezena transparentnost jako taková a stanovena hodnotící kritéria.

Pospíšil (2006) v souvislosti s transparentností uvádí, že i když je princip transparentnosti obecně uznáván, tak v praxi českých neziskových organizací vyvstávají určité problémy. První z nich vidí v nevyjasněnosti obsahu pojmu transparentnost a z toho plynoucí bezradnost při jeho aplikaci. Dále poukazuje na nedostatek objektivních údajů a poznatků o situaci v neziskovém sektoru a chybějící diskuzi, z níž by vyplynuly požadavky na legislativu, která by oddělila diskuzi o transparentnosti od diskuze o výkaznictví. Podle Pospíšila se v úvahách o transparentnosti kombinují dva principy, a to průhlednost a odpovědnost, přičemž termín průhlednost je širší než termín odpovědnost a je mu nadřazen.

Jakubka (In Kroupa, 2006) rozděluje transparentnost do několika skupin, a to na transparentnost poslání a cílů, transparentnost aktivit organizace, finanční transparentnost, transparentnost vedení a řízení a transparentnost vztahů s okolním světem. Je zřejmé, že termín transparentnost je možné definovat různě, v závislosti na tom, co je cílem zkoumání a jaká kritéria se k měření transparentnosti používají.

Tento příspěvek se zaměřuje na analýzu transparentnosti hospodaření českých nadací, přičemž hodnotícími kritérii jsou vybrané požadavky kladené na nadace legislativou, konkrétně dnes již neúčinným zákonem č. 227/1997 Sb., o nadacích a nadacích fondech.

Pro účely tohoto příspěvku lze definovat transparentnost hospodaření jako ochotu a schopnost naplňovat požadavky, které jsou kladeny na nadace legislativními či jinými předpisy (nebo také smlouvami), případně jinými subjekty v souvislosti s jejich činností, prostřednictvím zveřejňování volně dostupných informací v různé podobě. Transparentnost je možné dále zvyšovat zveřejňováním informací nad rámec legislativně či smluvně definovaných požadavků.

3 VÝZKUMY V OBLASTI TRANSPARENTNOSTI HOSPODAŘENÍ ČESKÝCH NADACÍ

I když se zkoumání transparentnosti hospodaření českých nadací dosud nevěnovalo mnoho vědeckých prací a studií, hodí se uvést alespoň ty zásadní. Citovaní autoři vesměs poukazují na nízkou míru transparentnosti hospodaření českých nadací.

Bachman (2012) vidí problém v nízkém podílu nadací, které zveřejnily svou výroční zprávu na svých webových stránkách (41,8 % nadací) a z toho pouhá polovina ji také poskytla rejstříkovému soudu. Obdobná situace podle něj platí v případě zveřejňování statutu na webových stránkách (32,7 % nadací), grantových pravidel (36,4 % nadací), informací o povinném auditu (30,9 % nadací) a pravidla omezujícího správní náklady (10,9 % nadací). Tyto závěry vyplynuly z výzkumu, který prováděl metodou obsahové analýzy webových stránek neziskových organizací v období od srpna 2011 až do září 2012. Statistický soubor zahrnoval 100 náhodně vybraných nadací, z nichž jen 55 % vlastnilo webové stránky, a pouze ty byly zahrnuty do analýzy.

Rozsáhlý výzkum prováděla Katedra manažerského účetnictví Fakulty financí a účetnictví Vysoké školy ekonomické v Praze ve spolupráci s Informačním střediskem Mikuláš, o. p. s. v roce 2007. Ten se zaměřil na výroční zprávy nadací vydané za roky 2004 až 2006, přičemž statistický soubor čítal 164 nadací. Výzkum se snažil analyzovat, zda sledované nadace dostály v roce 2007 více než osmi tisícům zákonně zveřejňovaných položek. Již v samotném

úvodu se uvádí, že z 8 036 kritérií bylo splněno 4 030, což představuje 50,15 %. Dalších 623 položek (7,75 %) se pojilo s určitými výhradami a zbylých 3 383 položek (42,10 %) nebylo splněno vůbec (Stránský, 2007). Toto prvotní zjištění považuje Stránský za nejdůležitější sdělení o transparentnosti nadací a dodává, že i v oblasti, kde má stát rozsáhlé možnosti kontroly, pravděpodobně rezignuje na účinné vymáhání takového jednání soukromých subjektů, které by bylo v souladu se zákonnou úpravou. Jinak si totiž nelze vysvětlit takto problematický výsledek u subjektů, jejichž povinnosti jsou z celého neziskového sektoru nejpřesněji definovány zákonem.

Stránský (2009) ověřoval platnost teze, předpokládající, že nadace dobře informují veřejnost o dosahované výkonnosti. Ta však nebyla potvrzena. Výsledky testů naopak poukázaly na nízkou míru zveřejňování výročních zpráv v roce 2006 na úrovni 40 %. V daném roce tedy většina českých nadací výroční zprávu nezveřejnila a porušila legislativní předpisy. Byly potvrzeny hypotézy předpokládající závislost členství ve Fóru dárců a smlouvy o převodu prostředků z Nadačního investičního fondu (dále také „NIF“) uzavřené mezi nadacemi a státem na pravděpodobnosti zveřejnění výroční zprávy. Stránský to zdůvodňuje tím, že nadace s prostředky z Nadačního investičního fondu a členské nadace Fóra dárců si více uvědomují odpovědnost vůči veřejnosti a zavazují se přísně dodržovat platné zákony.

Transparentnosti na úrovni české občanské společnosti, do níž patří i nadace, se věnuje studie realizovaná od prosince 2003 do listopadu 2004 Nadací pro rozvoj občanské společnosti (NROS) ve spolupráci s Fakultou humanitních studií Univerzity Karlovy v Praze v rámci mezinárodního projektu CIVICUS. Na poli finanční transparentnosti vyplynuly pro nadační subjekty nelichotivé závěry spojené s nízkým podílem těch, které zveřejnily výroční zprávu ve sbírce listin. Pouze necelá třetina z celkového počtu tuto povinnost splnila v roce 2002 (polovina nadací a necelá třetina nadačních fondů, Vajdová, 2005).

Problematické se zdá být podle Jošta (2016a) zveřejňování pravidla omezujícího správní náklady a kontrola jeho dodržování, protože průměrně 30 % nadací příjemců příspěvků z Nadačního investičního fondu nevěnovalo v letech 2009 až 2013 této oblasti vůbec žádnou pozornost ve svých výročních zprávách a účetních závěrkách. Vzhledem k tomu, že jde o příjemce spravující veřejné zdroje v částce přesahující 2,5 mld. Kč, daly by se očekávat výrazně lepší hodnoty.

Na rostoucí podíl nadací nezveřejňujících informace o provedeném auditu v letech 2009 až 2013 upozorňuje Jošt (2016b) – ten uvádí, že 9,46 % až 12,16 % nadací příjemců příspěvků z Nadačního investičního fondu nezveřejnilo zprávu auditora nebo výrok auditora k účetní závěrce.

Audit v českých nadacích podrobněji zkoumal Jošt (2016c), konkrétně zveřejňování zprávy auditora, zveřejňování jména auditora, výroku auditora a odměny za provedený audit. Zprávu auditora nezveřejnilo v roce 2013 až 31 % nadací (v letech 2009 až 2012 16 % až 18 % nadací), jméno auditora ve stejném roce nebylo možné dohledat až u 28 % nadací (v letech 2009 až 2012 14 % až 15% nadací) a odměnu za audit nezveřejnilo v daném období 82 % až 90 % nadací. Odměna za audit však nemusela být podle zákona o nadacích a nadačních fondech ani jiného předpisu zveřejňována. Proto drtivá většina nadací tuto informaci ve výročních zprávách ani účetních závěrkách neuvádí. Všechna kritéria zaznamenala v průběhu období rostoucí trend počtu nadací, které je nezveřejnily.

4 STANOVENÍ HYPOTÉZY, METODIKA, VYMEZENÍ STATISTICKÝCH SOUBORŮ

Vzhledem k tomu, že teprve od 1. ledna 2014 vstoupila v platnost nová legislativa v podobě nového občanského zákoníku, která poměrně zásadně uvolnila pravidla pro činnost nadací, není zatím k dispozici dostatečné množství dat pro hodnocení vlivu tohoto nového předpisu na transparentnost nadací. V současné době jsou k dispozici účetní závěrky a výroční zprávy za účetní období 2014, 2015 a jen u některých subjektů také za rok 2016, avšak aby analýza měla dostatečnou vypovídací schopnost, zapotřebí by byla časová řada dat alespoň za 5 let. Proto jsou statistická data čerpána za posledních pět let platnosti zákona o nadacích a nadačních fondech, a to za roky 2009 až 2013. Údaje jsou převzaty z výročních zpráv a účetních závěrek nadací zveřejněných na portálu portal.justice.cz a na webových stránkách nadací. Předmětem analýzy jsou dvě skupiny nadací: nadace příjemci příspěvků z Nadačního investičního fondu a ostatní nadace bez těchto prostředků. Konkrétně se výzkum zaměřuje na plnění kritérií transparentnosti, která vyplývají z uvedeného zákona, oběma skupinami nadací. Výsledky analýz prováděných na úrovni jednotlivých kritérií transparentnosti jsou vyjádřeny jako procento nadací nezveřejňujících sledovanou veličinu z celkového počtu nadací.

Na samém počátku přijalo prostředky z Nadačního investičního fondu celkem 74 subjektů (73 nadací a Nadační fond obětem holocaustu, dále také „NFOH“ – jejich seznam uvádí např. Jošt, 2016a). S ohledem na některé důležité skutečnosti však bylo nutné přistoupit k vyloučení vybraných organizací z testovaného souboru. Soubor tvoří z převážné části organizace mající právní formu nadace, proto byl vyloučen „NFOH“. Dále z informací Ministerstva financí České republiky („MFČR“) vyplynulo, že dvě nadace příspěvek vrátily, a to Nadace Patriae a Nadace Křižovatka. Nadace BOHEMIAE se nachází od roku 2001 v likvidaci. I tyto 3 nadace byly ze souboru vyloučeny. Po vyloučení výše zmíněných tří nadací a jednoho nadačního fondu zůstává v souboru 70 organizací.

Analýza výročních zpráv a účetních závěrek poukázala na významné problémy v transparentnosti některých nadací. Nadace fotbalových internacionálů nezveřejnila na svých webových stránkách ani na portálu portal.justice.cz žádné své výroční zprávy ani účetní závěrky. Nadace Mariastar Humanity zveřejnila výroční zprávu pouze v letech 2009 a 2011 a účetní závěrku pouze v roce 2009. To vedlo k tomu, že v drtivé většině sledovaných kritérií byly zařazeny tyto nadace do kategorie „nezveřejňuje“. Totéž platí pro Nadaci ARBOR VITAE, která zveřejnila výroční zprávu v letech 2009 až 2012 a nezveřejnila žádnou svou účetní závěrku. Tyto nadace lze označit za nejméně transparentní ze všech příjemců příspěvků z „NIF“. Zároveň je nutné uvést, že Nadace BOHEMIAE, Nadace fotbalových internacionálů, Nadace Mariastar Humanity a Nadace ARBOR VITAE získaly dohromady prostředky v celkové částce 62 321 tis. Kč a veřejnost neví, jak bylo s těmito zdroji naloženo. Ani stát nedokázal zajistit nápravu prostřednictvím svých nástrojů, které k tomu má.

Druhý statistický soubor zahrnuje také 70 nadací, tentokrát jde o ostatní nadace bez prostředků z Nadačního investičního fondu, které byly vybrány náhodným výběrem, přičemž aby mohla být nadace zahrnuta do statistického souboru, musela být aktivní ve zveřejňování dokumentů na portálu portal.justice.cz v letech 2009 až 2013 a musela vzniknout v roce 2009 nebo dříve. Naopak do výzkumu nebyly zařazeny nadace v likvidaci.

Přehled ostatních nadací bez prostředků z Nadačního investičního fondu zahrnutých do výzkumu uvádí Tabulka 1.

Tabulka 1: Přehled analyzovaných nadací bez prostředků z Nadačního investičního fondu

"Nadace Doktora Leopolda Prečana, arcibiskupa olomouckého, k podporování Arcibiskupského kněžského semináře v Olomouci"	Nadace Masarykovy dělnické akademie
"NADACE INGRID WLADUFSENOVÉ"	Nadace města Karlovy Vary
"Nadace Východočeská onkologie"	Nadace města Vodňan
Nadace AB	Nadace mezilidské tolerance Thomase Grala
Nadace ALTEGO	Nadace mezinárodní lékařské pomoci
Nadace AMERICAN INSTITUTE FOR FOREIGN STUDY PRAGUE	Nadace MUDr. Václava Náprstka
NADACE ARDEA	Nadace Mucha
Nadace Astma 2000 - Sanatorium pro astmatické děti	Nadace na ochranu fauny Evropy
Nadace AUTOEK - nadace pro rozvoj ekologie v automobilovém průmyslu	Nadace O2
Nadace B.Jana Horáčka Českému Ráji	Nadace OKD
Nadace Bohuslava Martinů	Nadace Per musicam aequo
NADACE BONUM COMMUNE	Nadace Pohyb bez pomoci
Nadace Collegium Marianum při Společenství Týnské školy Panny Marie v Praze	Nadace Pražské děti
Nadace českého kubismu	Nadace PRO FUTURO
Nadace českých památek	Nadace pro rozvoj architektury a stavitelství
Nadace ČEZ	Nadace Quido Schwanka - Troja, město v zeleni
Nadace člověk člověku	Nadace RACEK
Nadace Dra Eduarda Parmy, advokáta ve Frenštátě a jeho manželky Betty Heleny Parmové	Nadace RUDOLF
Nadace DrAK Dr. Altenburg Kohl	Nadace SAPIRICON
Nadace dřevo pro život	NADACE SENIO
Nadace FILM-FESTIVAL KARLOVY VARY	Nadace Sirius
Nadace Georgia Agricoly, region Slavkovský les	NADACE SOLIDARITY
Nadace HAIMAOM	Nadace Strážné věže
Nadace HAMU	NADACE STUDENT
Nadace Hieronymus	Nadace SYNOT
Nadace Jana Anderse Sládka	Nadace Taťány Kuchařové - Krása pomoci
Nadace Jana Pivečky	Nadace Terezy Maxové dětem
NADACE JARMILY PIŠKANINOVÉ	Nadace The Bakala Foundation
Nadace Jaroslava Havlíčka	Nadace THE KELLNER FAMILY FOUNDATION
Nadace KAPKY	Nadace Truck HELP
Nadace Komerční banky a.s. - Jistota	Nadace Věry a Vladimíra Janouškových
NADACE LANGHANS PRAHA	Nadace Věry Třebické Řivnáčové
Nadace Leoše Janáčka	Nadace VIA FORTUNA
NADACE MACHINERY FUND	Nadace VINCI v České republice
Nadace Martina a Lenky Romanových pro PORG	Nadace Železná Opona

Zdroj: Vlastní zpracování.

Analyzována jsou tato kritéria transparentnosti vyplývající z legislativy:

- zveřejňování výroční zprávy,
- zveřejňování účetní závěrky,

- zveřejňování dárců prostředků s částkou nad 10 tis. Kč,
- zveřejňování příjemců nadačních příspěvků s částkou nad 10 tis. Kč,
- zveřejňování zprávy auditora k účetní závěrce, resp. výroční zprávě,
- zveřejňování auditora,
- zveřejňování výroku auditora,
- zveřejňování nákladového pravidla a vyhodnocení jeho plnění,
- zveřejňování statutu,
- zveřejňování grantových pravidel.

V případě nadací s prostředky z Nadačního investičního fondu jsou sledována navíc ještě tato dvě kritéria, která u skupiny ostatních nadací bez prostředků z Nadačního investičního fondu nenachází opodstatnění:

- zveřejňování zprávy auditora o ověření hospodaření s prostředky z Nadačního investičního fondu,
- zveřejňování informací týkajících se hospodaření s prostředky z Nadačního investičního fondu.

Tyto požadavky vyplývaly nadacím s prostředky z Nadačního investičního fondu ze smluv o převodu prostředků uzavřených mezi nimi a státem.

5 TESTOVÁNÍ HYPOTÉZY

H_0: Mezi nadacemi příjemci příspěvků z Nadačního investičního fondu a nadacemi bez těchto prostředků neexistují na úrovni transparentnosti významné rozdíly.

Výsledky výzkumu za oba analyzované statistické soubory nadací zachycují Tabulka 2 a Tabulka 3.

Tabulka 2: Shrnutí výsledků - nadace bez prostředků z NIF (počet nadací nezveřejňujících kritérium v %)

	2009	**2010**	**2011**	**2012**	**2013**
Výroční zpráva	5,71%	7,14%	11,43%	10,00%	10,00%
Účetní závěrka	1,43%	2,86%	1,43%	1,43%	2,86%
Dárci	18,57%	18,57%	17,14%	18,57%	17,14%
Příjemci nadačních příspěvků	17,14%	22,86%	12,86%	21,43%	17,14%
Zpráva auditora	8,57%	10,00%	11,43%	11,43%	17,14%
Výrok auditora	8,57%	10,00%	11,43%	11,43%	17,14%
Auditor	8,57%	10,00%	11,43%	11,43%	17,14%
Správní náklady	47,14%	47,14%	47,14%	50,00%	52,86%

Zdroj: Výroční zprávy a účetní závěrky nadací. Vlastní zpracování.

Tabulka 3: Shrnutí výsledků – nadace s prostředky z NIF (počet nadací nezveřejňujících kritérium v %)

	2009	**2010**	**2011**	**2012**	**2013**
Výroční zpráva	5,71%	7,14%	4,29%	5,71%	8,57%
Účetní závěrka	8,57%	11,43%	10,00%	8,57%	12,86%
Dárci	25,71%	21,43%	22,86%	22,86%	22,86%
Příjemci nadačních příspěvků	5,71%	5,71%	5,71%	7,14%	10,00%

	2009	2010	2011	2012	2013
Informace o hospodaření s prostředky z „NIF“	17,14%	17,14%	17,14%	15,71%	17,14%
Zpráva auditora pro účely „NIF“	40,00%	45,71%	41,43%	44,29%	44,29%
Zpráva auditora k účetní závěrce	5,71%	10,00%	7,14%	8,57%	11,43%
Výrok auditora	5,71%	10,00%	5,71%	7,14%	10,00%
Auditor	5,71%	10,00%	5,71%	7,14%	10,00%
Správní náklady	38,57%	37,14%	38,57%	34,29%	35,71%

Zdroj: Výroční zprávy a účetní závěrky nadací. Vlastní zpracování.

Platnost hypotézy je ověřována pomocí Z-testu rovnosti dvou výběrových poměrů. Test předpokládá existenci dvou souborů (S_1 a S_2) velikostí n_1 a n_2. Soubory jsou tvořeny pozorováními dichotomického znaku. Hodnoty znaku lze označit A a B. Test předpokládá, že se výskyt hodnot znaku v souborech řídí binomickým rozdělením. Nechť se v souboru S_1 vyskytuje znak A s četností p_1, v soboru S_2 pak s četností p_2. Test se snaží vyslovovat závěry o platnosti hypotézy, že se relativní četnosti (tj. „výběrové poměry“) $\pi_1 = \frac{p_1}{n_1}$ a $\pi_2 = \frac{p_2}{n_2}$ výskytu znaku A rovnají.

Test binomické rozdělení výskytu znaků aproximuje užitím centrální limitní věty pomocí normálního rozdělení. Pro dostatečnou přesnost aproximace se proto obvykle požaduje splnění podmínky:

$$\min\{\pi, 1-\pi\} \min\{n_1, n_2\} \geq 5, \tag{1}$$

kde $\pi = \frac{p_1+p_2}{n_1+n_2}$ je sdružený výběrový poměr. Test rozhoduje podle testové statistiky:

$$Z_{abs} = \frac{\pi_1 - \pi_2}{\sqrt{\pi(1-\pi)\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}, \tag{2}$$

která má při splnění předpokladů testu přibližně normované normální rozdělení.

Test se provádí pro každé z kritérií a každý sledovaný rok. Za parametry jsou dosazovány následující hodnoty. Velikosti souborů $n_1 = 70$ a $n_2 = 70$ jsou počty nadací s prostředky z NIF a bez prostředků z NIF. Četnosti jednoho ze znaků p_1 a p_2 jsou počty nadací vyhovujících podle aktuálního kritéria s prostředky z NIF a bez prostředků z NIF v aktuálním roce.

Testována je hypotéza $H_0: \pi_1 = \pi_2$ proti oboustranné alternativní hypotéze $H_1: \pi_1 \neq \pi_2$.

Výsledky splnění předpokladu podle (1) uvádí následující Tabulka 4.

Tabulka 4: Splnění předpokladu

	2009	2010	2011	2012	2013	Součet
Výroční zpráva	4	5	5,5	5,5	6,5	26,5
Účetní závěrka	3,5	5	4	3,5	5,5	21,5
Dárci	15,5	14	14	14,5	14	72

	2009	2010	2011	2012	2013	Součet
Příjemci nadačních příspěvků	8	10	6,5	10	9,5	44
Zpráva auditora	5	7	6,5	7	10	35,5
Výrok auditora	5	7	6	6,5	9,5	34
Auditor	5	7	6	6,5	9,5	34
Správní náklady	30	29,5	30	29,5	31	150

Zdroj: Vlastní zpracování.

Test se nedá použít pro účetní závěrku v letech 2009, 2011 a 2012 a pro výroční zprávu v roce 2009. U výroční zprávy tato skutečnost nepůsobí problémy, u účetní závěrky je testován součet.

P-hodnoty podle testovacího kritéria (2) uvádí následující Tabulka 5.

Tabulka 5: P-value

	2009	2010	2011	2012	2013	Součet
Výroční zpráva	1,000	1,000	0,116	0,346	0,771	0,005
Účetní závěrka	0,053	0,049	0,029	0,053	0,028	0,000
Dárci	0,309	0,673	0,398	0,532	0,398	0,000
Příjemci nadačních příspěvků	0,034	0,004	0,145	0,016	0,217	0,000
Zpráva auditora	0,512	1,000	0,382	0,573	0,334	0,002
Výrok auditora	0,512	1,000	0,227	0,382	0,217	0,000
Auditor	0,512	1,000	0,227	0,382	0,217	0,000
Správní náklady	0,306	0,231	0,306	0,060	0,041	0,000

Zdroj: Vlastní zpracování.

Podle vyznačených hodnot není možné zamítnout hypotézu H_0, jelikož P-value je vždy vyšší než hladina významnosti ($\alpha = 0,05$). Ovšem pokud je testován součet, pak lze H_0 zamítnout. **Hypotéza 2 se nepotvrdila**. Na úrovni analyzovaných legislativních kritérií transparentnosti existují mezi oběma skupinami nadací určité rozdíly.

6 ZÁVĚR

Z-test rovnosti dvou výběrových poměrů nepotvrdil hypotézu, která předpokládala, že mezi nadacemi příjemci příspěvků z Nadačního investičního fondu a nadacemi bez těchto prostředků neexistují na úrovni transparentnosti významné rozdíly. Zároveň některá analyzovaná kritéria transparentnosti vykazovala vysoký podíl nadací, které je nezveřejnily.

V posledních letech dochází v Evropě na poli nadačního práva ke značné liberalizaci, zejména pokud jde o účel nadace, privatizaci dohledu nad nadacemi, rozšiřování možností podnikání a zpřísňování pravidel pro vnitřní organizaci nadací (tzv. corparate governance; Ronovská, 2012 a Ronovská, 2015). V současné době nabývá dohled nad nadacemi v jednotlivých zemích různých podob, lze však říci, že postupně upadá dohled ze strany státu a důraz je kladen spíš na prevenci pochybení ze strany orgánů nadací (zesílení odpovědnosti řídících orgánů nadace). Obdobný vývoj lze spatřit i v České republice s ohledem na novou právní úpravu v podobě nového občanského zákoníku. Není pochyb o tom, že legislativa by měla pružně reagovat na aktuální potřeby nadací a zajistit jim co nejlepší podmínky pro jejich činnost. Zejména co se týká možnosti změnit statut, účel nadace apod. Nejeví se však jako příliš šťastné uvolňovat celou právní úpravu nadací formou zrušení zákona o nadacích a

nadačních fondech a vytvoření nového předpisu v podobě zákona č. 89/2012 Sb., nový občanský zákoník, části upravující fundace. Vhodné je spíše částečné zmírnění v oblasti možnosti změnit účel nadace a statut, umožnit nadacím podnikat apod. Zdá se, že cílem nové legislativy není zvýšit úroveň transparentnosti českých nadací, když i přes její nízkou míru před přijetím nové právní úpravy nadací v roce 2014, došlo k výraznému uvolnění legislativních požadavků kladených na nadace. Právní úprava by na ni však myslet měla, zejména pokud jde o průhledné hospodaření těchto neziskových organizací a jejich možné zneužití k financování terorismu a legalizaci výnosů z trestné činnosti. Otázky zavádění černých listin neziskových organizací se dotýká např. Vymětal (nedatováno, a), přičemž cestu k posílení transparentnosti na úrovni celého neziskového sektoru nebo alespoň některých jeho složek vidí Vymětal (nedatováno, b) v jeho samoregulaci. Dvořák (nedatováno) řadí mezi objektivní aspekty zvyšující míru bezpečnostního rizika zejména benevolentní legislativu, neexistenci ověření účetní závěrky auditorem, nesestavení a nezveřejnění účetní závěrky, snadnost založení neziskové organizace aj.

Zároveň se změnou legislativy došlo ve stejném roce 2014 k ukončování smluv o převodu prostředků z Nadačního investičního fondu nadacím, což s sebou přineslo značnou volnost při nakládání s těmito prostředky, a to i přesto, že téměř polovina příjemců nezveřejnila příslušnou zprávu auditora. Ani zde se tedy nejeví jako příliš vhodné takto výrazně zmírňovat požadavky kladené na nadace v oblasti transparentního hospodaření.

Použitá literatura

1. BACHMAN, P., 2012. Transparentnost organizací občanské společnosti. Hradec Králové: Gaudeamus. ISBN: 978-80-7435-235-5.
2. DVOŘÁK, V., nedatováno. Hrozba financování terorismu prostřednictvím neziskového sektoru [on-line]. Ministerstvo vnitra České republiky. [cit. 27. října 2017]. Dostupné z: http://www.mvcr.cz/soubor/studie-dvorak-pdf.aspx.
3. JAKUBKA, Z., 2006. Proč transparentnost neziskových organizací. In: KROUPA, J. Transparentnost. Sborník k příležitosti konference v rámci programu „Transparency of Procedures at Local Level“, 26. – 27. října 2006. Ústí nad Labem: Podnos. ISBN 80-239-7873-X.
4. JOŠT, M., 2016a. Transparentnost hospodaření příjemců příspěvků z Nadačního investičního fondu. Český finanční a účetní časopis, 11(2), 93-108. ISSN: 1802-2200.
5. JOŠT, M., 2016b. Účetnictví a audit nadací a nadačních fondů po rekodifikaci práva. In: Nové trendy 2016. 11. ročník mezinárodní vědecké konference. Soukromá vysoká škola ekonomická Znojmo. s. 91–100. ISSN: 2336-7431. Dostupné z: http://trendy.svse.cz/uploads/File/VaV/sbornik_2016.pdf.
6. JOŠT, M., 2016c. Audit v českých nadacích. GRANT journal, 5(2), 22-25. ISSN: 1805-062X.
7. POSPÍŠIL, M., 2006. Jak zahájit debatu o transparentnosti? [online]. Centrum pro výzkum neziskového sektoru. [cit. 10. srpna 2017]. Dostupné z: http://www.e-cvns.cz/?typ=konferencni_prispevky&publikace=71&presenter=Publikace.
8. RONOVSKÁ, K., 2012. Nové české nadační právo v evropském srovnání. Praha: Wolters Kluwer. ISBN: 978-80-7357-972-2.
9. RONOVSKÁ, K. a kol., 2015. Metamorfózy nadačního práva v Evropě a České republice na počátku 21. století. Brno: Masarykova univerzita, Právnická fakulta. Spisy Právnické fakulty Masarykovy univerzity, řada teoretické, sv. č. 510. ISBN: 978-80-210-7747-8.

10. STRÁNSKÝ, J., 2007. Transparentnost a výkaznictví v českých nadacích [on-line]. Ministerstvo vnitra České republiky. [cit. 8. července 2017]. Dostupné z: http://www.mvcr.cz/soubor/studie-stransky-pdf.aspx.
11. STRÁNSKÝ, J., 2009. Měření výkonnosti nestátních neziskových organizací. Disertační práce. Vysoká škola ekonomická v Praze.
12. VAJDOVÁ, T., 2005. Česká občanská společnost 2004: po patnácti letech rozvoje. Zpráva projektu CIVICUS Civil Society Index pro Českou republiku. Brno: Akademické nakladatelství CERM. ISBN: 80-7204-379-X.
13. VYMĚTAL, P., nedatováno a). Černé listiny [on-line]. Ministerstvo vnitra České republiky. [cit. 27. října 2017]. Dostupné z: http://www.mvcr.cz/soubor/studie-vymetal-blackliting-pdf.aspx.
14. VYMĚTAL, P., nedatováno b). Samoregulace v neziskovém sektoru – nenaplnitelný ideál? [on-line]. Ministerstvo vnitra České republiky. [vid. 27. října 2017]. Dostupné z: http://www.mvcr.cz/soubor/studie-vymetal-ideal-pdf.aspx.

Kontaktní údaje

Ing. Marek Jošt
Vysoká škola ekonomická v Praze, Fakulta financí a účetnictví, Katedra finančního účetnictví a auditingu
nám. W. Churchilla 4, 130 67 Praha 3 - Žižkov
e-mail: marek.jost@vse.cz

SIX IMPORTANT FACTORS IN BREAK-EVEN ANALYSIS TOOL (BEAT) FOR ANALYZING PROFIT AND LOSS OF THE STARTUP BUSINESS

Minh Nguyen

Abstract

Break-even analysis is a critical tool that every organization must have in order to assist the managers in tracking their businesses operations more accurately and efficiently without having to guess or perform manual calculation in order to determine information such as the unit of sales, total cost, profit, or total sales. In this research paper, break-even analysis tool was developed in order to analyze and forecast the relationship between total cost and total revenue to figure out how much product output volume has to be produced by a company to break even with their total cost. By studying and being able to interpret these relationships among fixed cost, sale volume, variable cost, total cost, total sales, and sale price, senior management will be able to make accurate decisions when determining whether they need to buy, lease, or expand a new area of their business, simply need to build a new site. This information will also help them to determine whether or not they need to change their price structure, what sales volume is required to break even, and what sales volume and sales strategies must be produced in order to earn a set profit. Break-Even Analysis Tool (BEAT) was developed by the author, Dr. Minh Nguyen, to assist startup business owners to analyze and forecast their business operations based on the six basic venues: expected profit with an increased in sales price, expected profit with a reduced fixed cost, expected profit with a decreased in variable cost, expected loss with a decreased sales price, expected loss with an increased fixed cost, and expected loss with an increased variable cost.

Keywords *cost, analysis, price, variable, product, loss, business, determine, research*

1. Introduction

Break-even point analysis tool (BEAT) was developed to help managers and business owners with financial and business operations decision making. BEAT will provide executive management the financial insight with relevant analysis so they can run their daily business operation more effectively. GM has used the break-even point to determine the number of vehicles sold. According to authors, Stark and Stewart, in their article 3 ways to Lower Your Break-even Point [3], "GM break-even point in 2011 is estimated to be 2 million vehicles", pp. 01. Break-even analysis is the point where the output of the total sales volume of a business entity is balanced with the total costs. The break-even point will help managers'answer question such as what sales volume is required to break-even and determine whether or not the company is making a profit. Business managers can use this information to make wide range of decisions and set up the goals for their business strategy. A firm is operating above break-even point will earn profit and below the break-even point will incur loss. When a firm is operating at break-even point, it will balance the profit and loss which incurs no profit or loss to the business. For example, if you have a business and you want to sell a product, then you would have expenses. Some expenses including having to buy material and pay people, utilities, and rent. The net income determines based on the income minus the expenses. Break-even is when expenses and income are equal to each other. As a business owner, you want your company to be profitable and to avoid loss. How would managers know which volume of sales they need to meet so their company can avoid the loss and increase profitability? The break-even point (BEP) will help managers to answer question

when your business will begin to generate a profit. The BEP will provide a quick analysis so managers can determine whether your startup is worth pursuing. The break-even analysis tool (BEAT) will help managers to answer what profit can be expected on a given sale volume.

2. Baseline Scenario

The baseline scenario that I used in this study described as follow: You own a small paintbrush business. To startup your business, you had to invest 500 dollars on renting the manufacture and setup a facility to produce paintbrush, and it cost 0.6 cent each to make each paintbrush. Your company turns around and sells paintbrush to the customers at the prices for 0.85 cent each. How many minimum paintbrushes must your company sell in order to achieve the break-even point so that your company won't incur any loss in profits?

First, I have to formulate this problem into a set of the equations as follow:

Let β = number of paintbrushes and α = amount of money

$$\alpha = 0.6\,\beta + 500 \qquad (1)$$

where α is an amount of money per given number of paintbrush units sold at the break-even point. β represented the number of paintbrushes times 0.6 cent variable cost to produce each paintbrush plus the fixed-cost of 500 dollars.

$$\alpha = 0.85\,\beta \qquad (2)$$

where α is an amount of money per given number of paintbrush units sold at the break-even point.β is the number of paintbrushes times the sale price per each paintbrush unit.

$$0.85\,\beta = 0.6\,\beta + 500 \qquad (3)$$

In order to determine the number of units of paintbrushes sold at the break-even point, I will have to subsitute the α value of equation (2) into equation (1) so I can derive the β. Apply these equations above, the break-even point for the paintbrush company is $\beta = 2000$ paintbrush units. To substitute $\beta = 2000$ into equation (2) we have $\alpha = 0.85\,\beta = 0.85\,(2000) =$ 1700 dollars.

The graph in Figure 1 shows the break even units and in dollars amount in the baseline scenario for the paintbrush company. It illustrates the break-even point given the following inputs in the baseline scenario. The results in Figure 1 shows this is the number of paintbrushes that have to be sold by your company at a selling price of 0.85 cent before your business will start to make a profit. Your company will have to sell over 2000 units in order to start generating a profit.

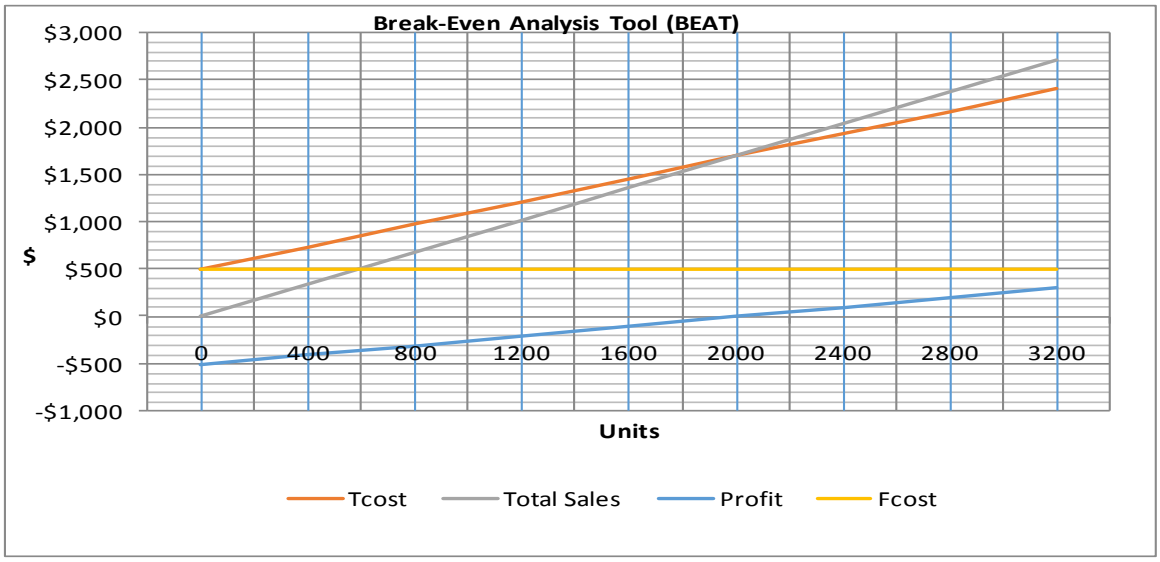


Figure 1: Break-even Point for a Baseline Scenario is 2000 Units vs. 1700 Dollars

3. Assumptions

I have to come up with a few assumptions that I used in this study in order to derive more precise conclusions. It is assumed that the cost to produce each paintbrush is 0.6 cent and each paintbrush cost 0.85 cent each, and 500 dollars was used as the initial investment for fixed-cost to set up small facility to make paintbrush. One assumption that I used was how the sale price set for the volume product sale is based on acceptable market price and total sales is the sale price of each paintbrush times to the total volume. A second assumption is how the linear model does not take into account the quantity discounts for the large volume procurement. Each unit incurs the same unit revenue and per unit variable costs. To simplify the linear model which is used in this paper, it is assumed that the average dollars per hour will remain the same regardless of employees who work on night or day shift which concerns about the differential pay.

4. First-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Reducing a Fixed-Cost (FC) to Minimizing the Business Expenses and Maximizing Profit

Reducing a fixed-cost: As a business owner you must understand that fixed-cost does not change when we increase the sale volume of product. Your business will have to pay the same fixed costs regardless of selling 100 products or 1000 of products. Managers decided to change fixed costs strategy by changing from in house production or doing business in house of a product to subcontracting its production; in this case, fixed-cost are minimal and almost can be further reduced by reducing rent to minizmie business expenses. As you can see from the Figure 2 below, when the company reduces their fixed-costs, their business profit will increase. It illustrated how reducing fixed-cost impacts the profits and the number of cost sold. The Figure 2 shows reduction in fixed-costwill increase in profit for the paintbrush‘s company. The total cost is also be lower due to reduciton in fixed- cost. Break-even point is lower has a direct impact to profit of the company. As compared to the baseline scenario, the reduction fixed-cost in the first factor scenario has the break-even units versus break-even dollars smaller than the baseline scenario. If you were able to reduce your fixed-cost by 200 dollars, you would also reduce the break-even point to (2000-1200=800 units) 800 units sold. Your company will start generating a profit as soon as the sale reaches over 1200 units.

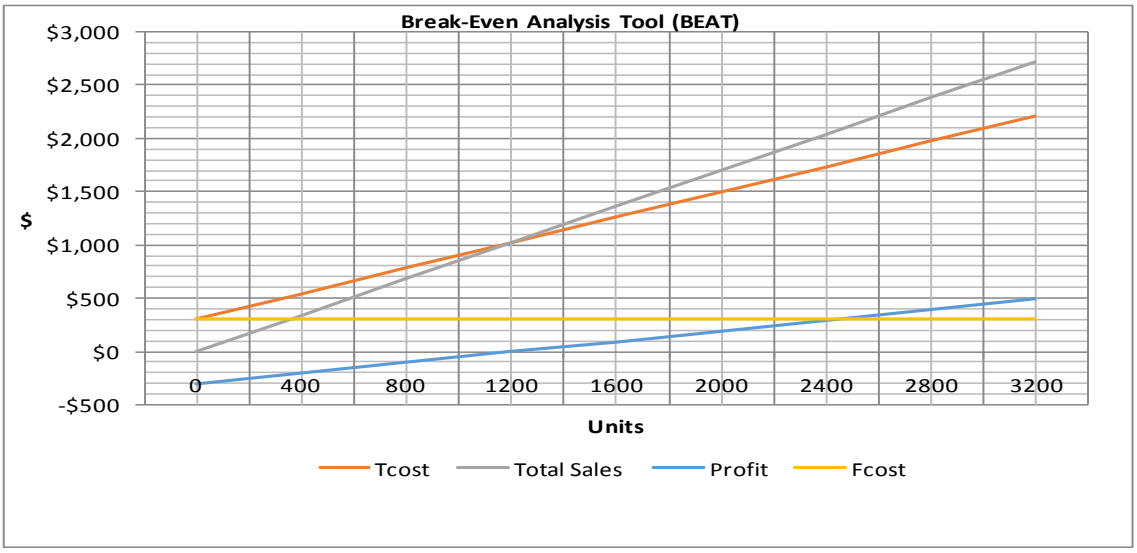


Figure 2: Break-even Point for a First-Factor Scenario by Reducing Fixed-Cost (1200 Units vs. 1020 Dollars)

5. Second-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Reducing a Variable-Cost (VC) to Minimizing the Business Expenses and Maximizing Profit

Reducing variable-cost: Business owners may decide to upgrade their facility with cutting-edge technology, in which case the variable-cost can be reduced or could be considered eliminated. In this case, the facility has been upgraded with automatic machinery and computerized system to help the company produces more volumes in less time. In addition, business owners are always looking the opportunity to maintain their product quality and keep the variable-cost down. They often searching for opportunities to find cheaper material, and so it is cheaper labor, and bring in new hires and pay them at the startup salary. Managers also take advantages of state of the art technology to automate the production and supply system. They also weighed on options of buying material from oversea countries and whether they would be willing to pay a little higher for the transportation cost from oversea countries. As shown in Figure 3 below, when I decrease the variable cost per unit or reduce the material and labor cost per unit, I discovered that the slope of the variable cost is decreasing. The break even point is lower. Profit is increasing based on the volume sold. In this analysis, when we reduced a variable-cost by 0.05 cents,the break-even point would also be reducedby 333 units (2000-1667= 333 units). In this case, your company will start generating a profit when they sell over 1667 units.

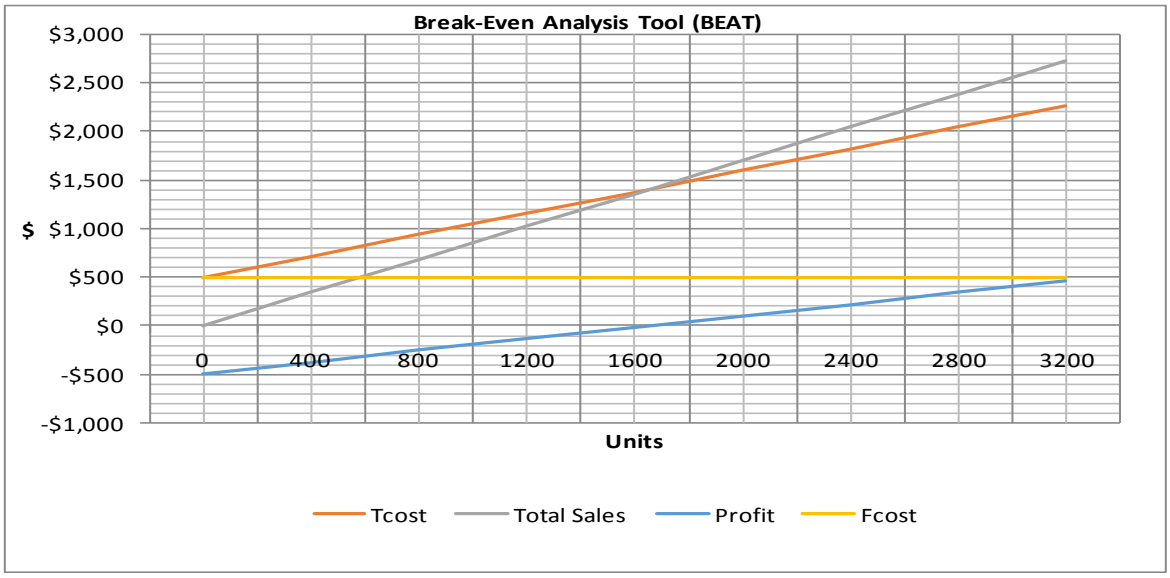


Figure 3: Break-even Point for a Second-Factor Scenario by Reducing a Variable-Cost (1667 Units vs. 1417 Dollars)

6. Third-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Increasing the Sale Prices (SP) to Maximizing Profit

Increasing sale prices: Large companies usually sell more than one product, so they tend to have less risks than small business organizations. They can reduce the possibility of having losing money by spreading its risk across many product lines instead of putting all eggs in one basket. In the case of small business operations, they don't have many products so their risk of putting all eggs in one basket can be substaintial. As new business owners, you want to find the balance between raising the price and maintaining the customers. However, you don't want to raise the prices to make up for the losses of the company and end up of losing your customers.You want your busines to be competitive, however, you don't want to follow your competitiors to match their prices because they just raised their prices. You might want to consider improving in products or services quality and give the customers fair warning as why they would expect the surging in prices. You have to be able to offer multiple options to accomodate their needs. To achieve more profitability for the business, company could look to increase the sale price or consider selling fewer units and still achieve the same level of profit as selling more product at lower prices. Raising the selling price without lowering volume increases profit, here the toal cost line remains unchanged, the total revenue line is higher due to increased selling price. With the same selling volume profit is increased. Increasing the sale price from 0.85 cent to 0.95 cent reduces the number of units sold to reach to the break-even point by 571 units (2000-1429 = 571 units). Figure 4 shows your company will start generating a profit when your company sell over 1429 units.

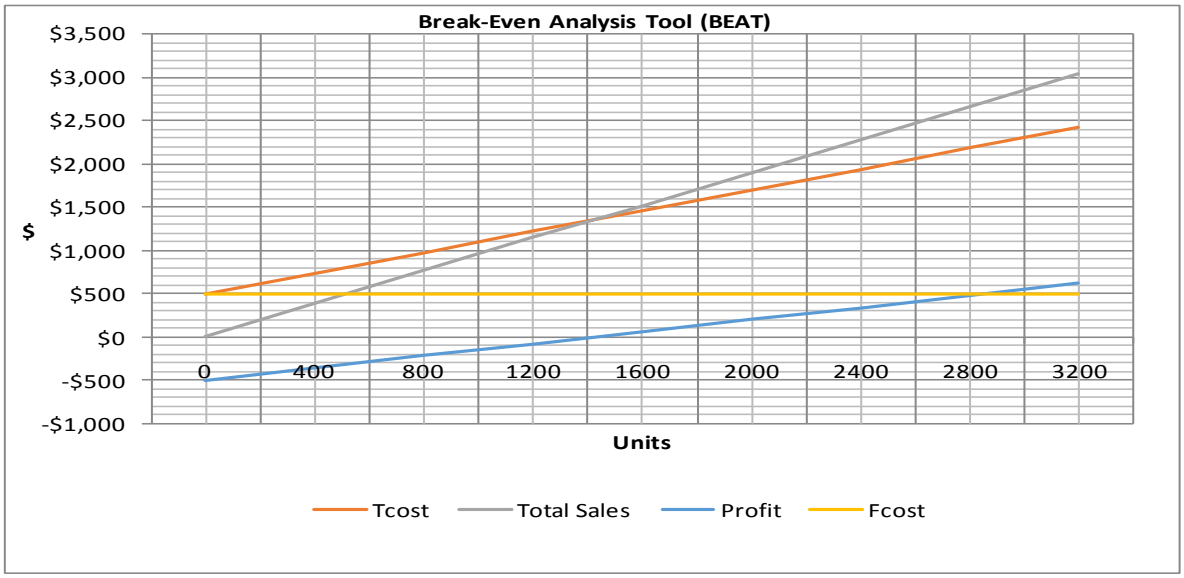


Figure 4: Break-even Point for a Third-Factor Scenario by Increasing the Sale Prices (1429 Units vs. 1357 Dollars)

7. Fourth-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Increasing a Fixed-Cost (FC) and Evaluating the Loss of Business Profit

Increasing fixed-cost: You always prepare for these situations when you have an increase in fixed-cost for your business. All other variables remain constant; when we have an increase in fixed-cost, it will drive the break-even point upward in which we called the increase in BEP point. A change in fixed-cost, in this case, of a fixed cost increase, the line shifts upward as shown in the graph. According to author, Wood, in his article How to Peform Break-Even Analysis [4], the author has stated that fixed cost does not change with sales volumes, para. 2. Some of the reasons why the fixed-cost was increasing such as including how the rent was increasing, the utilities or even the labor rate was increasing. Increase fixed-costs from 300 dollars to 500 dollars, which results in raising the break-even point and increases the number of units sold by 200 units (2400 units -2000 units = 400 units). It's important for business owners to realize that fixed-cost does not seem to change frequentely; however, it tends to increase when we produce the large level of production, such as we need a bigger warehouse to store more goods. There is no one-size option that fits all, we also need to look at the other options for substiution when there is an increase in fixed-cost. Your company will lose profit because they have to sell over 2400 units in order to start making a profit. There is a lot more units that needs to be sold as compared to less units sold in the first three scenario.

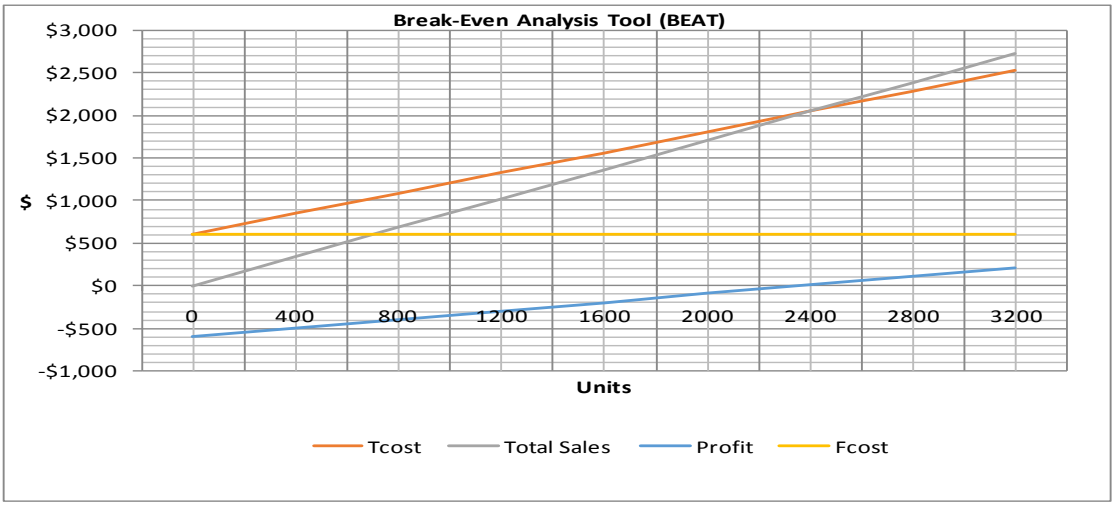


Figure 5: Break-even Point for a Fourth-Factor Scenario by Increasing a Fixed-Cost (2400 Units vs. 2040 Dollars)

8. Fifth-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Increasing a Variable-Cost (VC) and Evaluating the Loss of Business Profit

Increasing variable-cost: The author, Wood, has stated in his article [4] that variable-cost increases depend on sales volume, para 03. Business owners can reduce possibility of losing money by spreading its risk across many product lines or even consider of investing into multiple suppliers instead of relying on one primary supplier to acqurie goods and services. In comparing with small business owners, they don't have a lot of liquidity and cash flow to accmodate many business functions as large companies. A variable-cost increases also increases the break-even point. Variable-cost vary in linear fasion based on the level of volume output. A variable-cost for unit of one is one; however, the variable cost for unit of 100 is equal the varilable cost for unit of one times to 100. Figure 6 below illustrated more units need to be sold when the variable- cost is increasing. (2500 units – 2000 units = 500 units). Your company will have to sell over 2500 units in order to start making a profit. Any sell which is lower than 2500 units will incur a loss in profit.

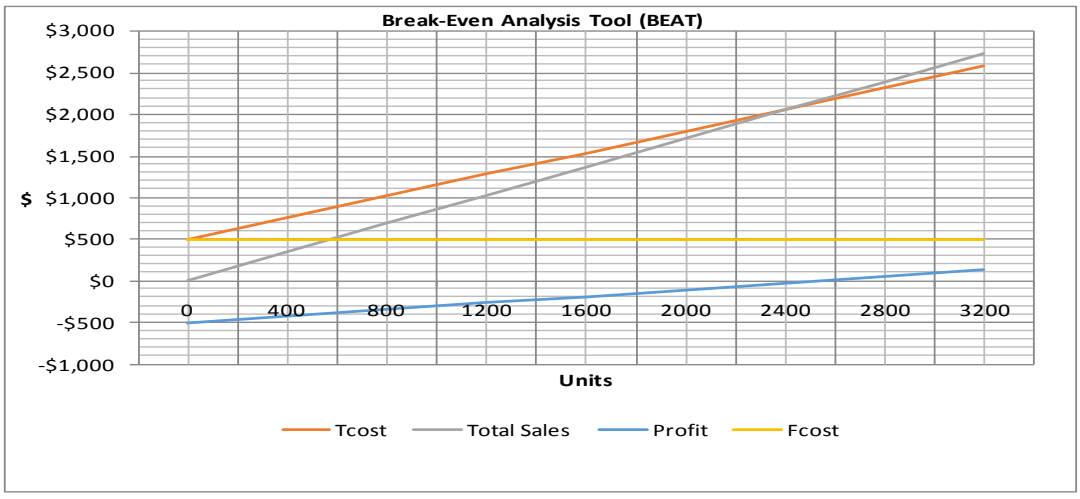


Figure 6: Break-even Point for a Fifth-Factor Scenario by Increasing a Variable-Cost (2500 Units vs. 2125 Dollars)

9. Sixth-Factor that Impacts a Break-Even Analysis Tool (BEAT) by Decreasing the Sale Prices (SP) and Evaluating the Loss of Business Profit

Decreasing in sale prices. Business owners has the right to tailor the product and services by lowering the prices. Given the startup business you need time to build up your market brand, educate consumers on using the products, and understand the key benefits of using your company's product versus someone else's product. The product sold must set off with target a small group of consumer first then larger group. Consumers are new to your brand so you will have to set the prices lower at first to attract their buying. After that, you can decide to gradually increase the price higher as they appeared to like your product. As shown in Figure 7, when there is a decreasing in sale price, the break-even point shifts upward position and company will have to sell more units to reach the break-even point (2632-2000=632 units).

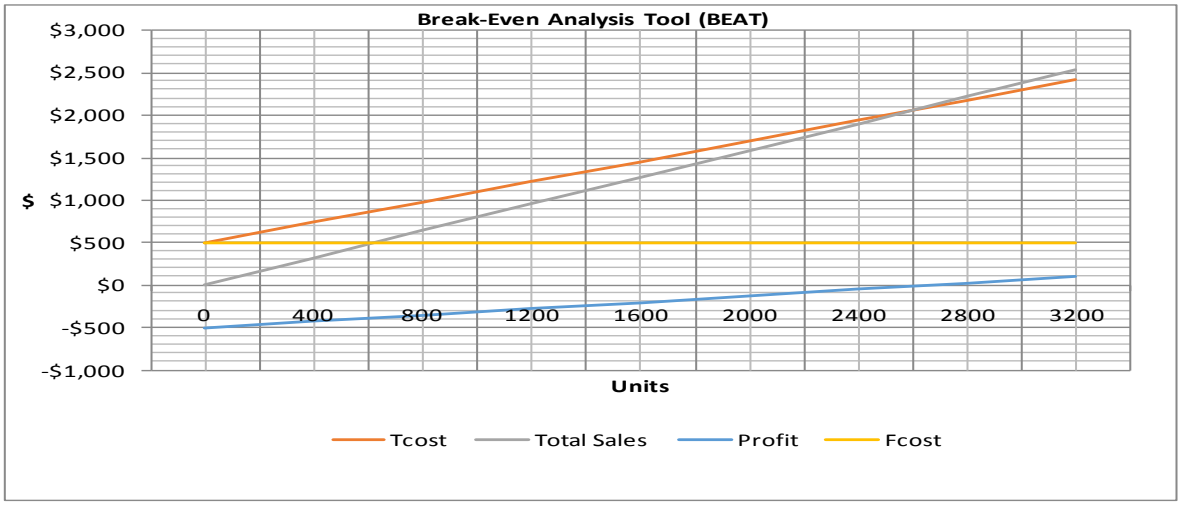


Figure 7: Break-even Point for a Sixth-Factor Scenario by Decreasing the Sale Prices (2632 Units vs. 2079 Dollars)

10. Conclusion

Break-even analysis tool (BEAT) is a great managerial accounting tool which is widely used in the business operation to conduct an accurate analysis between multiple cost factors as being either variable or fixed-cost. This tool will help managers to make informed decisions and help them to deal with how profit and costs change with a change in product volume will impact their business operation. There are several assumptions that affect the applicability of the break-even analysis tool in this study. If these assumptions are violated, the analysis that is used in this study may lead to erroneous conclusions and can cause confusion to the readers. Therefore, it's important that readers follow the assumptions that laid out in section 2 as they further reading into the other sections. The authors, Shim J. and Siegel J., have stated [2] break-even point is the point of no profit or no loss for the business, pp. 56. It also helps them to calculate the contribution margin for each product and determine the level of excess sales over the variable-cost of the product. It provides the managers and senior executive with the insights into the profit and production planning. Further research and development can be taken on to further expand this tool to incorporate new features such as determining the target of income volume and calculating how the breakeven point has an impact on the company when the company sells more than one product in their business. The authors, Shim J. and Siegel J., have explained about the risk to the firm as related to the rise in fixed-cost and capital cost [1]. The comparative analysis of the first three factor scenarios show they had the lower break-even point which results in increasing of profit for the company. The first-factor

has the break-even units of 1200 units and break-even in dollars of 1020, follow with a second-factor which has 1667 in units and 1417 in dollars, and the third-factor scenario has 1429 in units and 1357 in dollars. Overall, the first factor shows it reaches to the break-even point much faster which takes less number of units produced as compared to the second and the third factor. On the other hand, the fourth, fifth and sixth factors scenario show they had the higher break-even point which results in decreasing of profit. The fourth factor has 2400 units and 2040 in dollars, the fifth factor has 2500 units, and 2125 in dollars, and the sixth factor has 2632 in units, and 2079 in dollars. Overall, the fourth factor scenario shows it can reach to the break-even point quicker than the fifth and sixth scenario. Ultimately, develop an overall understanding to assess the impact of the business operation and the management accounting helps the business owners develop the future plan to meet company business performance objectives.

The study found as shown in Figure 8 described that the startup business has potential to increase the company profits by either creating more opportunity to reduce fixed-cost, reduce variable-cost, or increase the sale price as referenced in the first three factors which are highlighted in green color. On the other hand, if the company has increased fixed-cost, increased variable cost, or decreased sale prices that were referenced in the fourth, fifth and sixth factors which were in turn illustrated in the red color, then the company has the potential of generating decreased profit margins.

The break-even point comparative analysis in Figure 8 captures the summary of all the six factors which were used in this study using the computation from the six factors scenarios. These factors will help business owners to determine a different sales volume is required to break-even; as well the output volume is necessary in order to earn a desired profit for their business operations. BEAT can help business owners to answer such question: what would be the impact to their business operation if the company had a change in sale prices, increase or decrease in variable-cost, changes in fixed-cost?

		Lower Break-Even Point and Increases Profit			*Higher Break-Even Point and Decreases Profit*		
	Baseline	**First Factor**	**Second Factor**	**Third Factor**	**Fourth Factor**	**Fifth Factor**	**Sixth Factor**
Break-even (Units)	**2000**	**1200**	**1667**	**1429**	**2400**	**2500**	**2632**
Break-even ($)	**1700**	**1020**	**1417**	**1357**	**2040**	**2125**	**2079**

Figure 8: Break-even Point Comparative Analysis across Six Different Factor Scenarios vs. a Baseline Scenario

Acknowledgements
The author wishes to thank to the U.S. Army CERDEC which provided a wonderful training development opportunity to allow me to further engage in academic training and career development. The scientific method and management study training at LIGS University certainly provided me with tremendous assets and great opportunity to enhance my knowledge and skills to take on more challenging and complex projects with more confidence. I am proud to be a member and alumni with LIGS and looking forward for a cooperation opportunity with the school staffs and with the President Makovsky. The support from LIGS's staffs is amazing. I would like to thank you to Theresa at LIGS University who does a lot of coordination and help me make the payment on time so I can participate in this conference without any issues. I also wanted to thank my parents in supporting me during my time of conducting this research and writing this paper. Thank you to my wife, Hanh, and two beautiful children Christina and Sophia, for all their unconditional love and support my research. Thank you to the wonderful staffs and the online committee at the International

Masaryk for Ph.D. Students and Young Researchers 2017 Conference who make it possible for all of us to have an online interaction by hosting this wonderful online research conference so that all the PhD students, faculty, researchers, and academia have a chance to participate and exchange on new concepts and ideas about the important and relevant work that we do. I hope that the results of this research will provide some insight about various interactions of relationships among the six important factors that matters in the break-even analysis tool (BEAT) which helps employees and users have some accounting and financial insight to assess their current operating situation and be able to cope with decision planning and decision-making.

Thank you for reviewing my paper and please contact Dr. Minh Nguyen at the email address below if you need more information about this Break-Even Analysis Tool (BEAT). This tool is tremendously helpful and will be a great addition asset to your accounting and financial management toolbox. It can help the senior management, business leaders, team leaders, supervisors, new startup, and employees quickly assess the break-even point which related to fixed-cost, variable-costs, sales, profits and able to cope with many planning decisions in organization.

Sources

1. Shim J., Siegel J.,*Financial Management. Third Edition.* New York, NY: The McGraw-Hill Companies, Inc., 2007, pp. 306-307.
2. Shim J., Siegel J.,*Managerial Accounting. Second Edition.* New York, NY: The McGraw-Hill Companies, Inc., 2012, pp. 56-57.
3. Stark K., Stewart B., 3 Ways to Lower Your Break-even Point. Taking steps to improve profitability can actually help you to increase customer value and build brand equity. February 1, 2012. [Online]. Available: https://www.inc.com/karl-and-bill/3-ways-to-lower-your-breakeven-point.html [October 28, 2017].
4. Wood M., *How to Perform a Break Even Analysis*. Financial Management. Last updated on April 13, 2015. Fundera. [Online]. Available: https://www.fundera.com/blog/break-even-analysis [October 28, 2017]. pp. 18.

Contact

Dr. Minh Nguyen, MBA, Ph.D.
LIGS University
810 Richards St
Honolulu, HI 96813 USA
(808) 381 -5091
minh.d.nguyen25.civ@mail.mil

CHALLENGES OF CONTROLLERS IN POLISH COMPANIES

Marta Kawczyńska

Abstract

Nowadays it is difficult to imagine a company operating in a dynamically changing environment without a controlling department. The aim of the paper is to present the difficulties that arise during implementation of controlling and controllers' problems during the execution of their tasks. The most common reasons why Polish companies do not implement the controlling system include high costs of implementation and adaptation of the company to the new system. Incorrect position of controllers in the organizational structure as well as negative perception of these specialists by other employees, impedes the execution of controller's tasks in the already functioning systems in the enterprise.

Keywords: *controlling; management accounting; challenges of controlling.*

1. Introduction

The environment in which modern businesses operate is constantly undergoing dynamic changes. Such dynamic changes increase the need to streamline decision-making processes that are required for efficient management of companies. One of the best solutions which helps to manage a company, and at the same time improves its competitiveness and efficiency, is the use of controlling (management accounting system)[1]. The main task of controlling is to build a system combining various structural elements of an enterprise to assist managers in making reliable, and more accurate decisions. Both operational and strategic ones [Trocka, 2011]. Controller, also known as a management accounting specialist, is responsible for preparing for managers instruments and methods of planning, coordinating and controlling of economic processes that are related to the performance of individual functions and goals of the enterprise. The controlling system promotes a long-term success of the organization.

Managing a company that functions in a dynamically changing environment requires the managers to use all their extensive knowledge in the process of decision making. This results in the need to look for new and better tools that will improve the efficiency of management. Changes occurring in the functioning of companies result in continuous evolution of the role and tasks of controlling in business management [Johnson, Kaplan, 1987]. Nowadays, more emphasis is put on the provision of information about a company's environment rather than its internal activities. The use of management accounting in creation of business value is also particularly significant [Bromwich, Bhimani, 1994]. The information provided by the controlling system should optimize the allocation of resources, correct assessment of effectiveness of various activities and improvement of processes. Management accounting traditionally focuses on measuring business performance in the short run, using mainly financial measures. Traditional nature of internal reports does not provide adequate information for decision-making [Nowak, 2011, p. 330]. Therefore, management accounting

[1] The relation between controlling and management accounting was analyzed by the Commission for Management Accounting/Controlling of the Accountants Association in Poland. The relationship between these concepts was defined in the following way: "The analysis of concepts of controlling and management accounting shows that their objectives, tasks, methods and techniques do not show significant differences. Even professionals who specialize in these professions are named identically. "[Sobańska, Szychta, Świderska, Kabalski, 2010, p. 61]. The author of this article also took the view that controlling and management accounting are the same concepts.

in this way does not sufficiently satisfy management needs of modern organizations. In response to new challenges, the system of controlling is constantly changing. However, certain shortcomings and limitations in the use of solutions and methods of management accounting can be observed [Nowak 2011, p. 329].
Despite undisputed benefits ensuing from the use of controlling in an enterprise, yet few companies in Poland use it for the purpose of management. The reasons for abandoning the implementation of controlling in organizations are very different. The implementation of management accounting system involves a number of organizational changes in the company, such as identification of responsibility centers, positioning a new controlling department in the organizational structure or construction of information and reporting system. It also involves a lot of financial expense and is time-consuming. Often the implementation of controlling is met with employee reluctance to change and the lack of staff's awareness of a practical application of the new system [Dynowska, 2015, pp. 168-169].
The aim of this article is to present the barriers and difficulties that arise during the implementation of controlling in Polish companies and problems encountered by controllers in already functioning systems of management accounting.

2. The challenges of controlling systems in companies

Under current business conditions, management accounting in the traditional sense does not fully meet the management needs of modern organizations. Research conducted by many authors [Bromwich, Bhimani, 1989; Smith, 1998; Świderska, 1999; Szychta, 2006], which refer to the development of controlling, indicates some limitations and shortcomings of management accounting solutions and tools used by enterprises. These limitations are presented in table 1.

Table 1. Limitations of management accounting

No.	Limitations
1	The necessity to subordinate to requirements of financial accounting (e.g. in terms of inventory valuation, calculation of financial result).
2	Focus on measurement of short-term performance.
3	Evaluation of performance results mainly on the basis of financial measures.
4	Neglecting non-financial aspects during performance evaluation.
5	The lack of management accounting focus on the strategy.
6	Traditional approach to budgeting and cost calculation.
7	Standard character of internal reports which makes them unsuitable for decision-making.
8	The lack of measurement of long-term business goals.

Source: own elaboration based on: [Nowak, 2011, p. 330].

The above limitations clearly show that the direction of management accounting development should be changed. Under current conditions of highly competitive markets and continuously changing environments, the controlling should provide information needed for strategic management. The rapid development of information technology and growing demands of customers, who often change their preferences, also seem significant. Such situation establishes specific requirements for the system of controlling. Changes in business conditions of organizations are a major challenge for management accounting.
Constant changes in business environment have a significant impact on the evolution of management accounting practices. External factors affecting organizations, called environmental factors, such as globalization, development of information technology, and

growing competition, lead to changes in the organization's activities and the way they are managed [Lobo et. al, 2004]. In order to survive and succeed, organizations should actively adapt to changes in their environment. Such situation has a direct impact on the changes being introduced, such as the new style of management, customer-oriented activities and changing working patterns [Zainuddin, Sulaiman, 2016, p. 469].
The controlling system of a company is extremely significant when companies wish to stay competitive on the dynamically changing market. It is crucial for companies to bear in mind that there should be some changes introduced into the already used solutions of management accounting, but, at the same time, enterprises should additionally introduce new methods and tools. The issue was discussed in a study conducted by Janczyk-Strzała [2008, p. 56-145]. 23 small companies, 32 medium-sized and 16 large companies participated in the survey. Most enterprises (60% of small companies, 88% of medium-sized ones and 60% of large companies) saw the need for improvements in controlling systems. The system, at the time when the survey was carried out, did not provide all the necessary information required for management. In terms of the most necessary change to be introduced, regardless of the size of a company, the respondents most frequently mentioned the improvement of information flow between individual departments. Most small businesses (about 64%) indicated the need to make employees from other departments cooperate with the controlling department. Making changes, however, involves additional spending. According to the study, a large proportion of small businesses (40%) and a small proportion of medium-sized and large companies (4% and 6.67%, respectively) was unable to finance the necessary changes in their controlling systems. Despite the need to transform the system, the changes were too expensive introduce.

3. Barriers to the implementation of controlling

Companies that decide to implement the system of controlling must be aware of numerous problems and barriers which may occur during implementation. The most fundamental factor that influences the implementation success or failure is time [Nesterak, 2015, p. 113]. Prolonging duration of implementation greatly affects both the atmosphere as well the degree of acceptance for introduced changes. Smooth-running of implementation can reduce the number of obstacles that occur during the whole process.
The barriers that occur during the implementation of management accounting systems are usually divided into five groups [Nesterak, 2015, p. 113]: human factors, knowledge factors, organizational factors, information factors and financial factors. The most frequently observed barriers in terms of each group are presented in table 2.

Table 2. Grouped barriers to implementation of controlling

Social and psychological barriers (human factors):
Employee resistance to planned changes which stems from fear of new solutions.
No willingness to cooperate.
Fear of controlling stemming from the fact that employees incorrectly understand ”controlling” as strict control.
Loss of employee freedom.
Fear of employees stemming from the fact that their performance is evaluated and their incompetence may be revealed.
Difficulty in changing employee habits and targeting at more effective action.
Difficulty in recruiting employees with appropriate competence for controllers.
Discouragement stemming from the lack of rapid and visible effects of implementation.
Lack of faith in the purpose of implementation.
Lack of proper preparation of employees involved in the implementation process.

Knowledge factors:
Lack of people responsible for implementation and maintenance of controlling.
Inadequate qualifications of employees in terms of controlling department needs.
Small number of employees with controlling knowledge and lack of professionalism of people who deal with implementation of management accounting system.
Lack of knowledge of possible controlling instruments to be implemented.
Lack of knowledge about building a comprehensive information system.
Organizational factors:
Domination of outdated systems of management.
Problems related to the change of organizational structure and scale of decentralization of management process.
Illogical link between responsibility and a scope of qualifications.
Work overload of controlling department staff with tasks not included in their usual responsibilities.
Information factors:
Overestimating or underestimating the importance of information.
No real-time updates.
Databases with non-objective and unverified information.
Inadequate IT system or poorly implemented ERP system.
Out-dated system of document endorsement that prevents automated reporting and non-use of circulation of documents.
Lack of multi-dimensional multi-sectioned cost information.
Incomprehensible and unclear system of reporting.
Financial factors:
Lack of funds for external consultants during implementation.
Lack of funds for pre-implementation review.
Lack of funds for ERP system or its update.
Lack of funds for training administrators and users of the new systems.
Lack of funds for new hardware.

Source: own elaboration based on: [Nesterak, 2015, pp. 113–117]

The most difficult barrier to overcome is the psychological barrier that is linked to the human factor. Employees often do not accept changes, and management does treat controlling with high importance. Employees are afraid that they will be given additional responsibilities both during implementation and maintenance stage. From the viewpoint of many employees, changes are not needed, it is difficult for them to get rid of their habits and switch to modern thinking.

There is yet another barrier related to the human factor i.e. knowledge factor. It can be reduced in a relatively easy way by incorporating into the implementation project a well-thought-out education program for employees. However, this program should not be limited to employees of economic divisions. When implementing a management accounting system, training courses that extend the economic knowledge of engineers should be planned [Nesterak, 2015, p. 114].

Organizational barriers are related to the fact that it is difficult to adjust activities of individual departments as well as entire organizational structure to the requirements and needs of the controlling system. During implementation of management accounting, it may also be necessary to create a completely new organizational structure, which helps to focus on the company's goals. Controlling is often called a "tailor-made suit" [Trocka, 2011]. To achieve a

successful implementation, it is also very important to appropriately position the controlling department or the controller himself in the organizational structure.
Financial problems also occur during implementation of controlling. They are the easiest to identify, but very difficult to eliminate. Financial barriers affect decisions made in the company and often contribute to further difficulties. The implementation of the system incurs specific costs, which many companies are not prepared for. Employees who make decisions may also fail to notice the direct benefits of planned investments and reduce spending on necessary changes, which negatively affects the implementation and subsequent functioning of the system.
The factors which impede implementation of controlling in Polish companies were also researched by Dynowska [2015]. The study was conducted in a form of a questionnaire and involved 110 companies functioning in the Warmia-Masuria Province. The companies did not use the system of controlling. According to the study, the main reason behind the lack of management accounting in the researched companies included high cost of its implementation, especially hiring specialists and training employees (32.3% of surveyed organizations). 30.9% of companies claimed that they did not need, for the purpose of management, the complex instruments of the new system and perceived the already existing accounting system as sufficient in terms of information provision for effective management. A large proportion of surveyed companies (20%) did not implement controlling because the costs of using this system were considered disproportionate to its benefits. Other factors listed in the study included: the lack of sufficient knowledge of controlling (14.5%), the necessity to reconstruct organizational structure (13.6%), frequent changes of regulations preventing planning real cost and results (10.9%) [Dynowska, 2015, pp. 170-171].
The reasons behind unsuccessful implementation of controlling were also presented in a study conducted by Bieńkowska, Kral and Zabłocką-Kluczka [2017]. The survey was sent to 1960 medium-sized and large organizations operating in Poland; around 3.5% (68 organizations) sent back correctly filled questionnaires. Respondents were asked to indicate the extent of impact of certain factors on the decision about the lack of implementation of strategic controlling in their companies. The most important reasons behind the lack of implementation of controlling included good financial situation and long-term effectiveness of their organization and proper implementation of strategic management. The average respondents' ratings to these responses were respectively 3.42 and 2.92 (on a 5-point scale, where 1 meant no impact and 5 meant a decisive influence on the lack of implementation). The questionnaire also included responses such as the lack of coordination difficulties in the organization, reluctance of managers and reluctance of staff, which turned out to be the least significant cause of the lack of controlling implementation (average rating - 1.64) [Bieńkowska, Kral, Zabłocka-Kluczka, 2017, p. 58].
Another study on the barriers and difficulties encountered during implementation of controlling was conducted by Dynowska and Kes [2016]. The authors attempted to investigate the expected effects of controlling implementation in almost 40% of municipalities situated in the Warmia-Masuria Province. Only two out of 45 municipalities used the controlling system. Respondents mentioned low level of controlling knowledge as the main barrier to implementation of this system (62.2% of respondents). Employees' concerns (51.1%), selection of appropriate tools (51.1%), lack of financial support (46.7%) and lack of experienced and trained staff (46.7%) were also significant. The introduction of controlling in municipalities was also impeded by the lack of appropriate IT tools and time pressure [Dynowska, Kes, 2016, p. 175].
In spite of changes in business conditions, which force companies to operate in accordance with the competition principles, many companies still do not adapt controlling due to too many barriers to its implementation.

Fjałkowska conducted a study on the effects of controlling implementation in 49 companies [Fjałkowska, 2013]. The negative effects of implementation of management accounting, most frequently mentioned by the respondents included [Fjałkowska, 2013, p.78]:

- increased frequency and number of meetings, briefings and consultations;
- providing employees with too much information and documents from the controlling unit;
- increase of paperwork;
- rivalry between managers;
- conflicts between controllers and other departments;
- not enough information and too high requirements.

The respondents also pointed out that employees were forced to stay at work after hours to meet deadlines for implementation. Employees with lower education were also discriminated in terms of training plans.

The problems that arise during implementation of controlling are highly individual for each company. It is due to specific characteristics of each company such as its business profile, organizational solutions or managerial qualifications.

4. Challenges of contemporary controllers

A controller (management accounting specialist) acts as an advisor to people who manage the company and communicates information between management and the rest of the organization. A controller is an extremely important link that connects all areas of an enterprise. Thus it is very important that he can access all the necessary information and use it for the purpose of business goals. However, management accounting specialists often encounter numerous difficulties and problems in their work.

One of the difficulties is the way the controller is perceived by other employees. This problem was studied by Łapińska and Dynowska [2010] who carried out a survey among employees of 21 Polish companies. Most respondents (67%) considered the controller to be necessary for effective functioning of their company. This was due to controller's great dedication and desire to cooperate with other employees while solving problems. Only 5% of respondents considered the controller as a neutral person in the organization. However, as many as 28% of respondents perceived the management accounting specialist in a negative manner as a "controller", i.e. a person who strictly controls employees and their actions. Such approach greatly hampers the performance of controller's tasks and can significantly limit their range of activities.

Management accounting specialists in British organizations are perceived by managers as "business advocates", "business analysts", "business partners" and "financial analysts" [Yazdifar, Tsamenyi, 2005, p. 192]. It stems from the fact that controllers are required to actively participate in strategic decision-making and are encouraged to integrate more with teams responsible for decision-making. These specialists are also often called "hybrid" accountants because they play a very important role in decision-making and allow effective communication between managers at various organizational levels. Such role of controllers and expectations towards them are still a far cry from management accounting specialists in Polish organizations.

The perception of management accounting specialists also depends on the way how they communicate with employees in order to obtain necessary information and controllers' contribution to business. In 67% of surveyed companies, management accounting specialists conducted in-depth analyses on their own. In 24% of companies, controllers obtained data from the company system, which meant that the frequency of their communication with other employees was much lower. The remaining group of respondents (9%) indicated that

controllers received ready-made documentation from individual departments [Łapińska, Dynowska, 2010, pp. 322-323].
During information acquisition, controllers can encounter human and system barriers [Próchnicki, 2014, pp. 140-141]. Human barriers include:

- employee resistance to new regulations regarding provision of information,
- fear of losing the status of being irreplaceable,
- lack of purpose of providing information and willingness to cooperate.
- System barriers include:
- difficulty in acquiring information from the system,
- lack of detailed data,
- information system that is configured in an improper manner.

In addition, most data and information is stored in many separate Excel tables and dispersed between various employees, thus its acquisition for controllers is difficult [Próchnicki, 2014].
Controllers' position in the organizational structure seems very important in terms of their work efficiency. The controller can be positioned in a line or staff position. In a line position, controllers directly communicate with other departments. They participate in meetings of departmental managers, therefore it is easier for them to acquire information and provide suggestions on specific activities. This greatly improves the effectiveness of controlling activities. This position is stronger and more effective from the controller's point of view. The staff position makes the work of management accountant more difficult. The controller stays on the sidelines which significantly limits his communication with other managers. It obstructs the flow of information and lengthens the time of reaction to emerging threats. It additionally lengthens the time of decision-making, and as a result, efficiency of controlling falls [Janik, Paździor, 2012, p. 134]. Unfortunately, according to the author's own research[2], controllers in Polish companies are usually positioned in a staff position.
Accounting management specialists are responsible for preparing and interpreting decision calculus which support decision-making [Quinn, Rochford, 2013; Krell, 2011; Clinton, White, 2012]. Controllers only participate in decision-making, they do not have the power to decide in terms of business themselves. However, participation in the decision-making and advisory function to managers show that the role of controllers in global organizations is being elevated to the position of a business partner. This is confirmed by studies conducted by foreign authors such as Burns, Warren, Olivier [2014], Civichino [2013], Brito, Oliveira [2014], Ahid, Augustine [2012] or Goretzki, Strauss, Weber [2013].
Problems that occur in management accountants' work were also studied in an empirical research carried out in 2014 by a team from BDO, a consulting company [Financial Controlling Summit, 2014]. According to the respondents, pressure of time was the greatest difficulty in controller's work (73.5% of 117 responses). Communication of employees inside the company was frequently mentioned as a problem (48.7% of responses). Respondents also mentioned problems with available tools of controlling (29%) and frequently changing tax and accounting regulations (13.7%). Only a few respondents indicated lack of significant problems [Financial Controlling Summit, 2014].
In a dynamic business environment, management accounting professionals are expected to work closely with managers from all levels. Controllers should also support the management and provide valuable information for the purpose of strategic decision-making [Zainuddin, Sulaiman, 2016, p. 469]. An environment that changes rapidly requires adaptation to unexpected changes. Proper preparation for the effects of globalization both on local and

[2] The study was conducted by the author for the purpose of her master's thesis between 2014 - 2015. 130 respondents took part in the study (post-graduate students of management accounting and controlling, employees of controlling departments and accounting departments from Polish companies). 69.2% of respondents indicated a staff position of a controller in their companies.

international markets is currently one of the biggest challenges of management accountants [Zainuddin, Sulaiman, 2016, p. 469]. Globalization, changes in legal regulations, fierce competition and technological development have led to changes in the market environment which has a huge impact on business activity. The future of controllers depends largely on whether they are able to adapt to these changes and technological advancement. Contemporary controllers are required to actively participate in value creation activities and suggest new management solutions. Constant pursuit of business comparability, resulting from ongoing changes, has put a lot of pressure on management accounting professionals.

5. Conclusion

The analysis of literature shows that despite a number of benefits resulting from the adoption of controlling, the system is also a source of numerous problems that arise both during implementation and maintenance stage.

The barriers that emerged during implementation of controlling were divided into groups by the authors cited in the article. The barriers include human factors, knowledge factors, organizational factors, information and financial factors. As empirical research shows, high costs associated with controlling implementation and adaptation to the new system are the most common causes of non-implementation among Polish companies. Being aware of those barriers that may occur during implementation of controlling and their thorough examination may contribute to adopting an effective implementation methodology. This will eliminate or significantly limit these barriers.

According to studies cited in the article, many controllers are negatively perceived by other employees. Such situation makes acquiring necessary information very difficult. Barriers to proper performance of controllers' tasks can also result from their wrong positioning in the organizational structure. These conclusions seem extremely important in terms of Polish companies. Educating employees about the importance of management accountants' work and changing organizational structure can contribute to the improvement of controllers' performance.

The above conclusions suggest that it is worth trying to analyze the challenges of controlling in Polish companies in more detail. In-depth studies of difficulties encountered by controllers in Polish companies, especially in terms of tasks they have to perform could be particularly interesting.

References

1. Ahid M., Augustine A. (2012), *The Roles and Responsibilities of Management Accountants in the Era of Globalization*, Global Journal of Management and Business Research, Volume 12, Issue 15, Version 1.0.
2. Bieńkowska A., Kral Z., Zabłocka-Kluczka A. (2017), *Stan, bariery i przesłanki wdrożenia controllingu strategicznego – wyniki badań ogólnopolskich,* Rachunkowość a controlling, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 471.
3. Brito S. M., Oliveira J. (2014), *The controller's role and characteristics: an analysis of their evolution*, Artigo em Livro de Atas de Conferência Internacional.
4. Bromwich M., Bhimani A. (1989), *Management Accounting, Evolution not Revolution,* CIMA, London.
5. Bromwich M., Bhimani A. (1994), *Management Accounting: Pathways to Progress,* Chartered Institute of Management Accountants, London.
6. Burns J., Warren L., Oliviera J. (2014), *Business Partnering: Is It All That Good?,* „Controlling & Management Review", No. 2 .
7. Civichiono A. (2013), *Financial steward or business partner? The changing role of management accountants*, „CMA Magazine", March/April.

8. Clinton B. D., White L. R. (2012), *The role of management accountant 2003-2012*, „Management Accounting Quarterly", Vol. 14, No. 1.
9. Dynowska J. (2015), *Czynniki ograniczające wdrażanie controllingu w świetle badań ankietowych,* Rachunkowość a controlling, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 399.
10. Dynowska J., Kes Z. (2016), *Oczekiwane bariery, przesłanki i efekty wdrożenia controllingu w gminach w świetle badań ankietowych,* Rachunkowość a controlling, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 440.
11. *Financial Controlling Summit 2014. Ewolucja roli kontrolera: od raportowania do partnera biznesu* (2014), I Ogólnopolskie Badanie Działów Controllingu w przedsiębiorstwach, Rzeczpospolita, Warszawa.
12. Fjałkowska D. (2013), *Korzyści i bariery funkcjonowania controllingu – teoria, praktyka, wyniki badań,* Prace Naukowe Wałbrzyskiej Wyższej Szkoły Zarządzania i Przedsiębiorczości, Wydawnictwo WWSZiP, nr 21 (1).
13. Goretzki L., Strauss E., Weber J. (2013), *An institutional perspective on the changes in management accountants' professional role*, Management Accounting Research 24.
14. Janczyk-Strzała E. (2008), *Controlling w przedsiębiorstwach produkcyjnych,* Wydawnictwo CeDeWu, Warszawa.
15. Janik W., Paździor M. (2012), *Rachunkowość zarządcza i controlling,* Wydawnictwo Politechniki Lubelskiej, Lublin.
16. Johnson H. T., Kaplan R. S. (1987), *Relevance Lost: The Rise and Fall of Management Accounting*, MA: Harvard Business School Press, Boston.
17. Krell E. (2011), *Forecasting the Future Role of the Management Accountant*, The Society of Management Accountants of Canada, Ontario.
18. Lobo X.M., Tilt C., Forsaith D. (2004), *The future of management accounting: A South Australian perspective*, Journal of Management Accounting Research, vol. 2(1).
19. Łapińska A., Dynowska J. (2010), *Zakres zadań i oznaczenia stanowiska controllera w przedsiębiorstwie w świetle badań ankietowych,* Rachunkowość a controlling, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 123.
20. Nowak E. (2011), *Rachunkowość zarządcza w przedsiębiorstwie,* Wydawnictwo CeDeWu, Warszawa.
21. Nesterak J. (2015), *Controlling zarządczy. Projektowanie i wdrażanie,* Oficyna a Wolters Kluwer business, Warszawa.
22. Quinn M., Rochford D. (2013), *What management accountants do?*, „Accountancy Ireland", Vol. 45, No.1.
23. Próchnicki W. (2014), *Controlling w przykładach,* Wydawnictwo HELION, Gliwice.
24. Smith M. (1998), *Nowe narzędzia rachunkowości zarządczej,* Fundacja Rozwoju Rachunkowości w Polsce, Warszawa.
25. Sobańska I., Szychta A., Świderska G., Kabalski P. (2010), *Rachunkowość zarządcza a controlling*, Rachunkowość Pismo Stowarzyszenia Księgowych w Polsce, Wydawca Rachunkowość Sp. z o.o., Warszawa, nr 3.
26. Szychta A. (2006), *Etapy ewolucji i kierunki integracji metod rachunkowości zarządczej,* Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
27. Świderska G.K. (1999), *Rola rachunkowości w procesie podejmowania decyzji,* „Monitor Rachunkowości i Finansów", nr 10.
28. Trocka M. (2011), *Controlling jako system usprawniający zarządzanie przedsiębiorstwem,* „Studia i Materiały", Polskie Stowarzyszenie Zarządzania Wiedzą, nr 41.

29. Yazdifar H., Tsamenyi M. (2005), *Management accounting change and the changing roles of management accountants: a comparative analysis between dependent and independent organizations*, Journal of Accounting & Organizational Change 1,2.
30. Zainuddin Z. N., Sulaiman S. (2016), *Challenges Faced by Management Accountants in The 21st Century*, Procedia Economics and Finance 37.

Contact

mgr Marta Kawczyńska
PhD student, Department of Accounting
Faculty of Management
University of Lodz
ul. Matejki 22/26, 90-237 Łódź
e-mail: mkawczynska@uni.lodz.pl

FRAKTÁLNÍ ANALÝZA MĚNOVÉHO PÁRU EUR/CZK

FRACTAL ANALYSIS OF CURRENCY PAIR EUR/CZK

Vojtěch Sadil

Abstrakt

Příspěvek je zaměřen na aplikaci R/S analýzy a výpočet Hurstova exponentu pro časovou řadu měnového páru EUR/CZK, a to od okamžiku ukončení devizových intervencí ČNB do současnosti. První kapitola pojednává o podstatě hypotéz, vysvětlujících chování finančních trhů. Ve druhé kapitole je vysvětlena podstata R/S analýzy a Hurstova exponentu, včetně postupu při jeho výpočtu. Obsahem třetí kapitoly je praktická aplikace R/S analýzy na časovou řadu měnového páru EUR/CZK. Celkem je analyzováno 990 kurzových hodnot. V této kapitole bude také uveden výpočet Hurstova exponentu a fraktální dimenze, včetně interpretace zjištěných výsledků. Poslední, čtvrtá kapitola shrnuje poznatky a výsledky tohoto příspěvku.

Klíčová slova: *hypotéza fraktálních trhů, hypotéza efektivních trhů, R/S analýza, Hurstův exponent, měnový pár*

Abstract

The article is aimed at R/S analysis application and Hurst exponent calculation for time series currency pair EUR/CZK since the moment of currencies intervention ending till present. The first chapter deals with matters of hypothesis which explain behavior on financial markets. In the second chapter is explained the matter of R/S analysis and Hurst exponent, including algorithm its calculation. The third chapter is aimed at practical application R/S analysis from times series currency pair EUR/CZK. 990 exchange values are analyzed. This chapter also includes a calculation of Hurst exponent and fractal dimension, including the interpretation of the results found. The last, fourth chapter summarizes the findings and results of this paper.

Key words: *Fractal market hypothesis, Efficient market hypothesis, R/S analysis, Hurst exponent, Currency pair*

ÚVOD

Jednou z obětí nedávné globální finanční krize byla, mimo celou řadu finančních, investičních a bankovních společností, také jedna z významných hypotéz, která se po dlouhou dobu pokoušela vysvětlit chování finančních trhů. Tato hypotéza, nesoucí název „Hypotéza efektivních trhů“, představovala od 60. let 20. století dominantní přístup k nahlížení na finanční trhy. Sám její autor, Eugene Fama, přiznal už v roce 2005 (viz Jílek, 2009), že tato hypotéza má svá kritická místa a následná finanční krize jen potvrdila neplatnost této hypotézy.

Důsledkem těchto událostí je skutečnost, že v současné době neexistuje komplexní teorie, která by chování finančních trhů uspokojivě vysvětlovala. Protiváhou hypotézy efektivních trhů je méně propracovaná a výrazně mladší hypotéza fraktálních trhů. Hypotéza fraktálních trhů není produktem teoretických akademiků, ale stojí za ní osobnosti, mající praktické zkušenosti s finančními trhy (Sojka, Dostál 2008). Nepsaným cílem tohoto článku je přispět k rozšíření povědomí nejen o hypotéze fraktálních trhů, ale také o odvozených nástrojích, které slouží k analýze finančních trhů. Pro tento účel byl vybrán měnový pár EUR/CZK. Období

kurzové stability, které bylo důsledkem intervencí ČNB je již záležitostí historie. Od okamžiku ukončení devizových intervencí vykazuje vývoj tohoto měnového kurzu klesající trend (viz obrázek 1). V tomto případě to znamená, že česká koruna posiluje vůči euru. Aplikací metod, vycházejících z hypotézy fraktálních trhů je možné zjistit, jak silný je tento trend, zda existuje paměťový efekt v časové řadě a zda minulé hodnoty měnového kurzu ovlivňují hodnoty současné. Výpočtem Hurstova exponentu u časových řad různých finančních produktů se již zabývalo několik autorů. Pro měnové kurzy viz například článek od Vandewalle et al., (1997).

1 FUNGOVÁNÍ FINANČNÍCH TRHŮ

Za účelem vysvětlení chování finančních trhů byly zkonstruovány dvě základní hypotézy: hypotéza efektivních trhů a hypotéza fraktálních trhů. První uvedená hypotéza je příkladem ideální a bezrozporné teorie. Tato hypotéza je však výrazně propracovanější než druhá jmenovaná. (Sojka, Dostál, 2008) Počátky hypotézy efektivních trhů sahají až k francouzskému matematikovi Louisi Bachelierovi. Tento matematik poprvé přišel s myšlenkou, že chování cen na finančním trhu je nepředvídatelné, neboť ceny vykonávají „náhodnou procházku“. (Jílek, 2009) Podstatu hypotézy efektivních trhů uvádí ve svém článku Fama (1970), který navázal na práci svého francouzského předchůdce a stanovil následující předpoklady: Cena aktiva na finančním trhu zahrnuje všechny dostupné informace, přičemž investor tyto informace zná a umí je interpretovat. Dalšími předpoklady jsou averze k riziku, normální rozložení zisku a předpoklad, že trhy nemají paměť. Fama spolu s dalšími zastánci hypotézy efektivních trhů (Jensen, 1978) rozlišují tři formy efektivnosti trhu, a to: slabou, střední a silnou. Tyto předpoklady jsou však v rozporu s realitou a s historickým vývojem na finančních trzích.

Hypotéza fraktálního trhu spadá rámcově do paradigmatu deterministického chaosu. Zmíněné paradigma tak představuje mapu, prostřednictvím které se lze na finančním trhu orientovat. Hypotéza fraktálního trhu představuje protiklad k mnohem známější hypotéze efektivního trhu. Na rozdíl od hypotézy efektivních trhů, tato hypotéza nepopírá vznik tržních selhání a různorodé jednání celé řady investorů či spekulantů. Zároveň se pokouší vysvětlit chování investorů v celém tržním cyklu, včetně konjuktur a krachů. Jednoduše řečeno, zohledňuje nálady trhy. Lze se setkat i s názory, že hypotéza fraktálního trhu dokáže vysvětlit zmíněné tržní jevy mnohem lépe než hypotéza efektivních trhů. (Sojka, Dostál, 2008, Dostál, 2002)

Principy, na nichž je hypotéza fraktálního trhu postavena uvádějí Peters (1994), Sojka a Dostál (2008) a obecně také Mandelbrot (2004). Účastníci trhu představují velkou skupinu jedinců, přičemž každý z nich má různý investiční záměry, různé znalosti a dovednosti. Liší se také chování a psychická zdatnost těchto investorů. Informace ovlivňují chování investorů různým způsobem, existují rozdíly mezi technickými a fundamentálními analytiky. Zásadním faktorem, ovlivňujícím stabilitu trhu je likvidita. A konečně, ceny na finančních trzích jsou ovlivňovány kombinací krátkodobé technické a dlouhodobé fundamentální analýzy. Krátkodobé trendy jsou přisuzovány vlivu davového chování. V dalších částech tohoto příspěvku budeme vycházet výhradně z fraktálního pohledu na finanční trhy. V následující části budou představeny nástroje, které souvisejí s hypotézou fraktálních trhů a které je možné využít při analýze finančních trhů.

2 HURSTŮV EXPONENT A R/S ANALÝZA

Hurstův exponent je charakteristickou mírou pro dlouhodobou paměť v časových řadách. Podrobnější matematickou definici neuvádím, k tomuto více viz například Peters (1994), případně Krištoufek a Vošvrda (2012). Aby byl Hurstův exponent investorovi užitečný, je nutné jej správně interpretovat. Interpretaci tohoto exponentu uvádějí Peters (1994) a Mandelbrot (2004). Hurstův exponent nabývá hodnot $0 \leq H \leq 1$, přičemž platí:

- H > 0,5 – kladná korelace, časová řada má tendenci pokračovat v současném směru. fraktální časové řady mají právě tuto charakteristiku
- H < 0,5 – negativní korelace, časová řada má tendenci vrátit se k výchozímu bodu, resp. bude následovat oslabení trendu a jeho otočení
- H = 0,5 – žádná korelace, časová řada je normálně rozložená a nemá žádný paměťový cyklus

Uveďme ještě poznámku, že v případě, H = 0,5, platí, že ceny vykonávají „náhodnou procházku". Trh je v tomto případě možné považovat za efektivní a v tento okamžik platí závěry, které uvádí hypotéza efektivních trhů. Zde je možné vidět, že hypotéza fraktálních trhů nevylučuje, v jistých okamžicích, platnost konkurenční hypotézy efektivních trhů.
Existuje vztah mezi Hurstovým exponentem a fraktální dimenzí. Platí následující vztah: D = 2 – H. (Mandelbrot, 2004). Význam pojmu fraktál a fraktální dimenze zde nebude blíže uveden. Lze odkázat na publikace autorů Mandelbrota a Peterse. V investorské praxi byla zjišťována souvislost mezi H a výstupy získané pomocí neuronových sítí pro Dow-Jones index. Bylo zjištěno, že období s vyšším exponentem H, mohou být predikována s vyšší přesností. (Qian, 2004) V případě efektivního trhu platí, že D = 1,5, což znamená, že Hurstův exponent dosahuje hodnoty 0,5. (Krištoufek, Vošvrda, 2012)
Hurstův exponent se odhaduje mimo jiné, pomocí R/S analýzy (Rescaled Range Analysis / Metoda přeškálovaných rozsahů). Tento exponent je také možné odhadnout pomocí celé řady dalších metod (DFA, DMA), uvedených například v článku Krištoufka a Vošvrdy (2012).
Autorem R/S analýzy byl britský hydrogeolog Harold E. Hurst. Ve své práci zkoumal vývoj vzestupu a poklesu hladiny řeky Nil, a to dle záznamů několik stovek let dozadu. Pomocí standartních statistických metod však nezaznamenal žádné významné korelace mezi naměřenými hodnotami. Později však vyvinul vlastní, neparametrickou metodu, pomocí které odhalil silný paměťový efekt ve vývoji hladiny řeky ve sledovaném období. (Peters, 1994, Mandelbrot, 2004)
R/S analýzu do světa finančních trhů přivedl americký trader Edgar Peters, který bývá považován za jednoho z autorů hypotézy fraktálních trhů (Peters, 1994). V případě, že se investor pokusí odhadnout Hurstův exponent z časové řady, využije k tomuto účelu tzv. Hurstův algoritmus. Tento algoritmus uvádějí Peters (1994) a Mandelbrot (2004). Výpočet bývá zpravidla zdlouhavý, proto se doporučuje využít specializovaný software. Hurstův algoritmus obsahuje následující kroky:

- Vychází se z časové řady hodnot $x_1, x_2, \dots, x_n$, kde je těmto hodnotám přiřazen určitý čas *t = 1, 2, ..., N*. Na vstupu je tedy *N-1* časových intervalů délky 1.
- Časová řada je rozdělena na m sousedních intervalů, které se nepřekrývají. Délka intervalů je n, platí: N = m*n.
- Pro každý interval je nutné, zjistit průměrnou hodnotu $\bar{x}_j$ dle vzorce:

$$\bar{x}_j = \frac{1}{n}\sum_{i=1}^{k} x_{ij}$$
$$j = 1, 2, \dots, m$$

- Dále se pro každý uvedený interval vytvoří časová řada, jejíž hodnoty představují kumulované odchylky od výše zjištěné průměrné hodnoty $\bar{x}_j$:

$$z_{kj} = \sum_{i=1}^{k} (x_{ij} - \bar{x}_j)$$
$$k = 1, 2, \dots, n$$

- Pro každý interval se dále provede výpočet následujících parametrů:
  1. Rozpětí kumulovaných odchylek od průměrné hodnoty $\bar{x}_j$

$$R_j = \max(z_{kj}) - \min(z_{kj}) \geq 0$$

  2. Směrodatná odchylka

$$s_j = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(x_{ij} - \bar{x}_j)}$$

  3. Standardizované rozpětí

$$R_j/s_j$$

- Nyní jsou vypočítány všechny požadované náležitosti, je tedy možné dosadit do vzorce, za účelem zjištění průměrné hodnoty R/S, a to pro interval délky *n*:

$$(R/S)_n = \frac{1}{m}\sum_{j=1}^{m}(R_j/S_j)$$

- V praxi se pak hodnota Hurstova exponentu odhaduje logaritmickou regresí:

$$\log(R/S)_n = \log C + H \log n$$

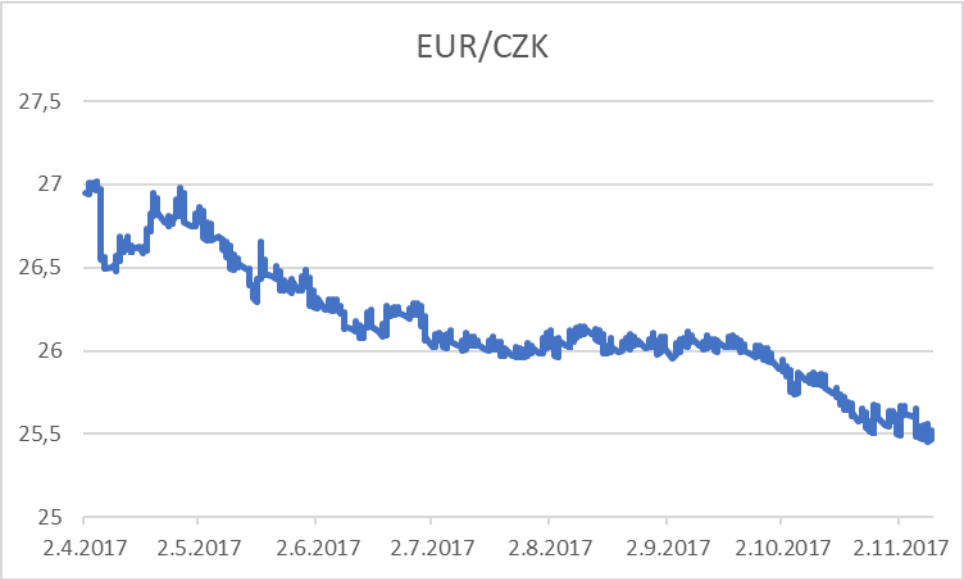
3 APLIKACE R/S ANALÝZY NA MĚNOVÝ PÁR EUR/CZK

Vstupní data pro tuto analýzu byla získána z platformy Metatrader. Analyzovány jsou uzavírací 4 H ceny měnového páru EUR/CZK. Tento měnový pár, který lze zařadit do kategorie exotických měnových párů, nám vyjadřuje, kolik jednotek české měny je nutné zaplatit na získání 1 eura. Výběr tohoto měnového páru ovlivnila skutečnost, že ČNB ukončila 6. 4. 2017 intervence na oslabení české koruny. Od tohoto okamžiku je hodnota měnového páru znovu výrazně determinována tržními silami. Analyzována jsou tržní data od 2. 4. 2017 do 10.11. 2017.

Ramirez (2002) ve svém článku analyzuje vývoj měnového páru USD/MXP od okamžiku tzv. Tequilla efektu, který měl zásadní dopad (pro MXP negativní) na hodnotu tohoto měnového páru. V případě tohoto příspěvku je za zásadní okamžik považován právě okamžik ukončení intervencí ze strany ČNB. Inspirací pro tento příspěvek je, mimo jiné, práce Ramireze (2002) a Vandewalle (1997).

V této podkapitole je uveden výpočet Hurstova exponentu pomocí R/S analýzy s cílem zjistit, zdali ve vývoji měnového páru EUR/CZK existuje paměťový efekt a pokud ano, jak je tento efekt silný (tzn. „jak moc“ je časová řada perzistentní či anti-perzistentní). Výsledek této analýzy může sloužit jako dílčí podklad pro spekulační rozhodování. V případě perzistence časové řady je možné pokračovat v analýze této časové řady celou řadou dalších metod, jako jsou například Elliottovy vlny a technická analýza. Pokud se výpočtem H exponentu ukáže, že ceny měnového páru vykonávají „náhodnou procházku“, je vhodné analýzu této časové řady ukončit. Rozhodovací schéma při procesu spekulace či investice na finančních trzích, se zahrnutím „analýzy chaosu“, uvádí ve své publikaci Dostál (2002).

Vstupem pro R/S analýzu jsou tržní data měnového páru EUR/CZK, zařazená do časové řady. Graf uzavíracích 4 H (čtyřhodinových) cen EUR/CZK je uveden níže, na obrázku 1.

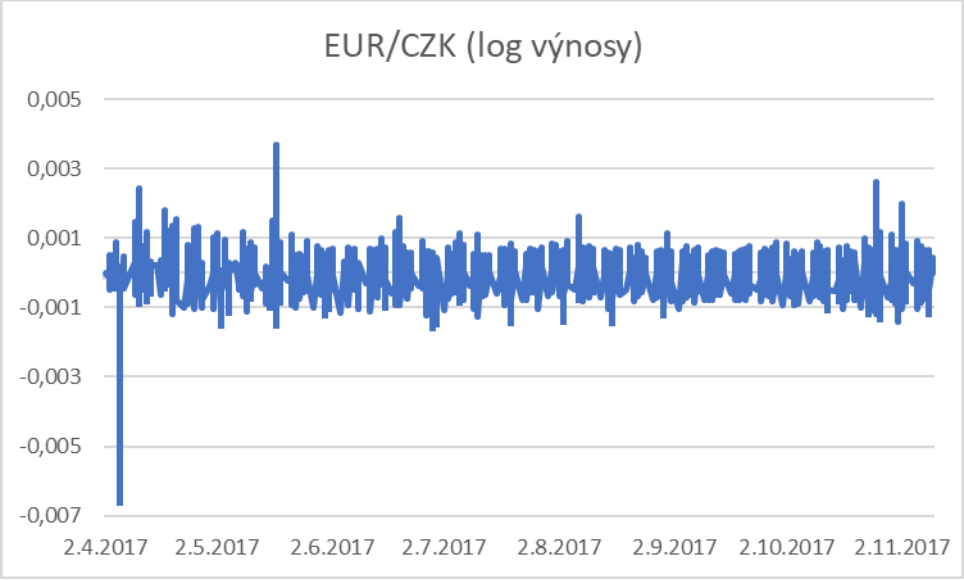


Obrázek 1 Časová řada měnového kurzu EUR/CZK (zdroj: Metatrader, vlastní zpracování)

Data, uvedená v tomto grafu, je nutné před provedením R/S analýzy upravit. Úpravou se zde rozumí převedení na časovou řadu logaritmů výnosů. Postupujeme dle následujícího vzorce, přičemž platí, že P_t představuje hodnotu měnového páru EUR/CZK v čase t a X_t představuje logaritmus výnosů v čase t.

$$X_t = \log\left(\frac{P_t}{P_{t-1}}\right)$$

Data byla upravena pomocí programu MS Excel. Zjištěné hodnoty X_t jsou graficky zobrazeny níže, na obrázku 2.



Obrázek 2 Logaritmy výnosů EUR/CZK, (zdroj: vlastní zpracování)

Z takto upravených dat je nyní možné přistoupit k odhadu Hurstova exponentu. K tomuto účelu byl využit program *NumXL*, který představuje nástavbu MS Excel. Hodnoty X_t zde postačí vložit do funkce *Hurst*. Výstupem této funkce je právě odhad exponentu *H*, v tomto případě dostáváme výsledek $H = 0{,}4175$.

Další výpočet Hurstova exponentu byl proveden pomocí programu *Fractal Lab*. Zde dostáváme odhad *H = 0,4350*. Časová řada měnového páru EUR/CZK tedy vykazuje negativní korelaci a je zde indikace k postupnému otočení současného trendu směrem k výchozí hodnotě. Dále je patrné, že měnový pár EUR/CZK nevykonává „náhodnou procházku“. Výsledky této analýzy je možné interpretovat tak, že posilování české koruny vůči euru již dosahuje svých limitů. K 10. 11. 2017 se 1 euro obchodovalo za 25,40 české koruny. To je hodnota, srovnatelná s hodnotami v před-intervenčním období (podzim roku 2013). Domněnku o ukončení posilování české koruny lze podpořit také technickou analýzou (např. RSI index vykazuje „přeprodanost“ tohoto měnového páru). V horizontu příštích měsíců je možné očekávat, že se hodnota měnového páru EUR/CZK bude pohybovat na úrovně 25,6 CZK za 1 euro. Praktickým výstupem této analýzy je zjištění, že v současné době již není žádný prostor pro krátkodobou spekulaci na posílení české koruny.
Fraktální dimenzi časové řady zjistíme dosazením do následujícího vztahu D = 2–*H*. V tomto případě získáváme výsledek D = 1,5925. Zopakujme, že pro efektivní trh je hodnota D = 1,5. To znamená, že v případě tohoto měnového páru neplatí teorie efektivního trhu. Dnešní ceny jsou tedy ovlivňovány cenami včerejšími.

4 SHRNUTÍ A ZÁVĚR

Hypotéza fraktálních trhů představuje v současnosti jedinou relevantní teorii, prostřednictvím které je možné nahlížet na chování finančních trhů. Tato hypotéza je však odborné veřejnosti málo známá. Existuje několik nástrojů pro analýzu finančních trhů, které z této hypotézy vycházejí. Mezi tyto nástroje patří R/S analýza a její výstup, Hurstův exponent. Cílem této práce bylo aplikovat R/S analýzu a vypočítat Hurstův exponent pro měnový pár EUR/CZK, vyjádřený časovou řadou. Výsledkem této analýzy je zjištění, že analyzovaná časová řada vykazuje paměťový efekt a negativní korelaci (anti-perzistentní charakter). Příspěvek obsahuje rovněž praktickou interpretaci zjištěných výsledků.

Použitá literatura

1. DOSTÁL, Petr. Moderní metody ekonomických analýz: finanční kybernetika. Vyd. 1. Zlín: Univerzita Tomáše Bati, 2002, 110 s. ISBN 80-7318-075-8.
2. FAMA, Eugene F. Efficient Capital Markets: A Review of Theory and Empirical Work. In: The Journal of Finance [online]. 1970, Vol. 25, No. 2, s. 383-417 [cit. 2017-11-12]. Dostupné z: http://1url.cz/Htzxg.
3. JENSEN, Michael. Some Anomalous Evidence Regarding Market Efficiency. In: Journal of Financial Economics [online]. 1978, Vol. 6, No. 2, s. 95-101 [cit. 2017-11-12]. Dostupné z: http: //1url.cz/AtSfk.
4. JÍLEK, Josef. Finanční trhy a investování. Praha: Grada, 2009, 648 s. Finanční trhy a instituce. ISBN 978-80-247-1653-4.
5. KRIŠTOUFEK, Ladislav a Miroslav VOŠVRDA. Efektivita kapitálových trhů: Fraktální dimenze, Hurstův exponent a entropie. In: Politická ekonomie [online]. 2012, Vol. 60, No. 2, s. 208-221. [cit. 2017-11-12]. Dostupné z: http:// 1url.cz/etSfj.
6. MANDELBROT, Benoit B. a Richard L. HUDSON. The (mis)behavior of markets: a fractal view of risk, ruin, and reward. New York: Published by Basic Books, 2004, 353 s. ISBN 978-0465043552.
7. PETERS, Edgar E. Fractal market analysis: applying chaos theory to investment and economics. New York: J. Wiley & Sons, 1994, 336 s. ISBN 0471585246.
8. QIAN, Bo. Hurst exponent and financial market predictability. In: IASTED konference on Financial Engineering and Applications [online]. 2004, s. 203-209 [cit. 2017-11-12]. Dostupné z: http://www.actapress.com/Content_Of_Proceeding.aspx?ProceedingID=269.

9. RAMIREZ, Jose A. Characteristic time scales in the American dollar–Mexican peso exchange currency market. In: Physica [online]. Vol. A309, 2002, s. 157-170 [cit. 2017-11-12]. Dostupné z: http://www.sciencedirect.com/science/article/pii/S0378437102006003.
10. SOJKA, Zdeněk a Petr DOSTÁL. Elliottovy vlny. Brno: Tribun EU, 2008, 272 s. Knihovnicka.cz. ISBN 978-80-7399-630-7.
11. VANDEWALLE, Nicolas, AUSLOOS, Marcel a Philipphe BOVEROUX. Detrended Fluctuation Analysis of the Foreign Exchange Market. In: Econophysics Workshop 1997 [online]. Budapest: 1997, s. 36–49 [cit. 2017-11-12]. Dostupné z: http://1url.cz/itS8R.

Kontaktní údaje

Ing. et Ing. Vojtěch Sadil
Univerzita Tomáše Bati ve Zlíně, Fakulta managementu a ekonomiky
Mostní 5139, 760 01 Zlín
Tel: 608 469 266
email: sadil@fame.utb.cz

SOUČASNÁ REALITA FINANČNÍCH TRHŮ Z HLEDISKA STRATEGIÍ FINANČNÍHO MANAGEMENTU

REALITY OF FINANCIAL MARKETS WITH REGARD TO THE FINANCIAL MANAGEMENT STRATEGY

Tomáš Jeřábek, Zdeněk Málek, Vladimír Šefčík, Jana Štofilová

Abstrakt

Alokace aktiv neboli rozdělení investičního portfolia do různých tříd aktiv, jako jsou akcie, dluhopisy, komodity, peněžní investice atd., je po desetiletí základním kamenem investičního plánování. Někteří autoři zpochybňují hodnotu alokace aktiv a výhody moderní teorie portfolia (MPT), která uvádí, že optimální portfolia mohou být vytvořena uvážením vztahu mezi rizikem a výnosností. Vzhledem k novým tržním skutečnostem, které se objevily v souvislosti s poslední finanční krizí, je nutné, aby se MPT neustále vyvíjela. Cílem příspěvku je upozornit na nové znaky charakterizující současné finanční trhy včetně možností jejich modelového zachycení.

Klíčová slova: *Alokace aktiv, teorie portfolia, korelace*

Abstract

Asset allocation or the division of the investment portfolio into different classes of assets such as stocks, bonds, commodities, money investment, etc., is the cornerstone of investment planning for decades. Some authors question the value of asset allocation and the benefits of modern portfolio theory (MPT), which states that optimal portfolios can be created by considering the relationship between risk and return. In view of the new market facts that have emerged in the context of the recent financial crisis, it is necessary for the MPT to evolve continuously. The aim of the paper is to highlight the new features characterizing the current financial markets, including the possibilities of their model capture.

Key words: *Asset allocation, Portfolio theory, Correlation*

1 ÚVOD

Alokace aktiv neboli rozdělení investičního portfolia do různých tříd aktiv, jako jsou akcie, dluhopisy, komodity, peněžní investice atd., je po desetiletí základním kamenem investičního plánování. Cílem alokace aktiv je snížit riziko diverzifikace tím, že se vystavuje různým investicím, které se v různých tržních podmínkách chovají odlišně. V posledních letech, především během období tržního stresu, však byla patrná vyšší korelace - neboli výraznější společný pohyb mezi třídami aktiv. Někteří autoři zpochybňují hodnotu alokace aktiv a výhody moderní teorie portfolia (MPT), která uvádí, že optimální portfolia mohou být vytvořena uvážením vztahu mezi rizikem a výnosností. Je důležité si uvědomit, že alokace aktiv stále pomáhá investičním portfoliím, a to i v době nechtěného vývoje na trhu. Domníváme se však, že by investoři měli zvážit úpravu svých strategií alokace aktiv tak, aby zohledňovali vyšší korelace a nové investiční možnosti. Vzestup netradičních tříd aktiv, jako jsou komodity, stejně jako nových tříd akcií nebo dluhopisů, dala investorům další možnosti diverzifikace. Cílem příspěvku je upozornit na nové znaky charakterizující současné finanční trhy včetně možností jejich modelového zachycení.

2 TRADIČNÍ ALOKACE AKTIV

Alokace aktiv tvoří základ investiční filozofie. Cílem této investiční techniky je diverzifikace portfolia mezi různé typy aktiv, jako jsou akcie, obligace, peněžní ekvivalenty, vzácné kovy, nemovitosti a inkasovatelné pohledávky. Co se týče rizika a výnosu, chovají se jednotlivé třídy aktiv značně odlišně. Například akcie nabízejí nejvyšší výnos, ale jsou také nositeli nejvyššího rizika ztrát. Obligace nejsou natolik lukrativní, ale nabízejí mnohem větší stabilitu než akcie. Strategie alokace aktiv umožňuje dosáhnout optimální poměr rizika a výnosu.

Uvažujme následující příklad dvou investic:

- 100 dolarů investovaných do velkých společností v USA (představovaných indexem S&P 500) na začátku roku 1970 by do konce roku 2013 vzrostlo na 7 771 USD.
- 100 USD investovaných na komoditních trzích (měřeno indexem S&P GSCI) by za stejné období vzrostlo na 4 829 USD.

Pokud by však těchto 100 dolarů bylo investováno ve smyslu 50-50 do obou investic, tj. 50 USD do akcií a 50 USD do komodit, pak by se za stejné časové období hodnota portfolia zvýšila na 9 457 USD. Tento výnos je o 20% více než samotné portfolio akcií a téměř dvojnásobek výnosnosti komoditního portfolia, přičemž lze ukázat, kombinované portfolio vykazuje nižší stupeň rizika. Tedy, i když obě investice jsou považovány za poměrně rizikové, jejich kombinace pomáhá zmírnit riziko portfolia. To je způsobeno relativně nízkou korelací mezi nimi.

Rozdíl mezi výnosem diverzifikovaného portfolia a součtem výnosů individuálních aktiv je to, co nositel Nobelovy ceny Harry Markowitz kdysi nazval „jediným bezplatným obědem v oblasti financí“. Jinými slovy, diverzifikace může časem přinášet výhody bez dodatečných nákladů. Tento „volný oběd“ je umožněn tím, že jednotlivá aktiva nejsou obvykle dokonale korelována. Pokud hodnoty aktiv nejsou v dokonalém souladu, bude diverzifikované portfolio méně rizikové než riziko jeho jednotlivých částí. Ve skutečnosti může mít diverzifikované portfolio často menší riziko než jeho nejméně riziková složka. Důvodem, že nižší riziko portfolia může v dlouhodobém horizontu vést k vyššímu bohatství, je, že hodnota portfolia méně rizikového portfolia obecně v období poklesu trhu neklesá, takže se může zotavit rychleji než rizikovější portfolio, které prudce kleslo. Například portfolio, jehož hodnota se sníží o 25%, musí vzrůst o 33%, aby se zotavila ze své ztráty. Portfolio, které klesne o 10%, však musí růst pouze o 11%, aby se plně uzdravilo.

Markowitz poprvé představil koncept diverzifikace v roce 1952. Markowitzova práce, která sloužila jako základ pro tzv. moderní teorii portfolia (MPT), dospěla k závěru, že investor by mohl snížit celkové riziko portfolia tím, že zahrne investice, které mají navzájem nízké korelace. V roce 1964 představil Bill Sharpe Capital Model Asset Pricing Model (CAPM), který popsal vztah mezi rizikem a očekávaným výnosem a zavedl beta jako míru citlivosti vzhledem k tržnímu riziku. V roce 1990 Markowitz a Sharpe získali Nobelovu cenu za ekonomii za svůj významný příspěvek k MPT. V roce 1986 Gary Brinson, Randolph Hood a Gilbert Beebower studovali alokaci 91 penzijních fondů a dospěli k závěru, že rozhodnutí o alokaci aktiv v průměru vysvětluje více než 90 % rizika penzijního fondu měřeno volatilitou výnosů v čase. V roce 2000 Roger Ibbotson a Paul Kaplan ukázali, že velká část v rozptylu v časových řadách vychází z obecných pohybů na akciových trzích, nikoliv ze specifického rozhodnutí o alokaci aktiv. Ještě důležitější je, že správně poukazují na to, že mnozí investoři se mylně domnívají, že výsledek Brinsona, Hooda a Beebowera se vztahuje na úroveň výnosnosti. Argumentují tím, že protože v průměru investoři „neporazí“ trh (průměrná výnosnost těch, kteří porazí trh, je kompenzována průměrným výnosem těch, kteří to

neudělají), politika přidělování aktiv vysvětluje 100 % typických individuálních výnosností jednotlivých investorů.

I když v průběhu dalších let se objevovaly mírné pochybnosti s uvedenou Markovitzovou teorií, až do poslední finanční krize se neobjevily závažnější pochybnosti spojené s MPT. Kritici poukázali na vyšší korelace mezi třídami aktiv během období zvýšené tržní volatility, což zásadně podkopává přínosy diverzifikace, když je investoři nejvíce potřebují. Pokud tedy zkoumáme úlohu alokace aktiv v dnešních investičních portfoliích, je důležité si uvědomit, že i během období tržního stresu má diverzifikace stále smysl. Je rovněž důležité uznat, že strategie alokace aktiv mohou být dynamické - jak při výběru tříd aktiv, které je třeba zahrnout, tak při provádění taktických úprav, aby odrážely krátkodobé či dlouhodobé změny na trhu nebo makroekonomickém prostředí.

3 NOVÁ REALITA FINANČNÍCH TRHŮ

Vzhledem k novým tržním skutečnostem, které se objevily v souvislosti s poslední finanční krizí, je nutné, aby se MPT neustále vyvíjela. Ke zmiňovaným novým skutečnostem lze řadit následující fakta:

- Vyšší korelovatelnost aktiv
- Zvýšené vnější šoky
- Nižší výnosy dluhopisů
- Očekávané výnosy z akcií jsou nižší

3.1 Vyšší korelace mezi aktivy

Zaměřme se nyní na tyto skutečnosti podrobněji. Diverzifikační výhody spojené s kombinací aktiv v rámci portfolia jsou dány především tím, jak se vzájemně propojují výnosy z těchto aktiv, přičemž statistickým ukazatelem tohoto vztahu je právě korelace. Když jsou dvě aktiva dokonale korelovány, mají korelaci +1. Výnosy z těchto aktiv jsou v dokonalé harmonii, takže jejich kombinace v portfoliu není výhodná. Když jsou dvě aktiva dokonale negativně korelovaná, tj. mají korelaci -1, pak v takovém případě může zahrnutí obou aktiv do portfolia eliminovat všechna rizika. Konečně, nulová korelace znamená, že obě aktiva nejsou korelovaná. V tomto případě se hodnoty aktiv nepohybují společně a existují značné výhody pro diverzifikaci, ovšem vzhledem k nezávislosti nelze riziko zcela vyloučit.

Ve skutečnosti žádná dvě aktiva nejsou dokonale korelovaná - ať už pozitivně nebo negativně. V praxi je většina korelace pozitivní a investoři by měli hledat investice s nižší vzájemnou korelací. Poměrně málo aktiv má mezi sebou nízké nebo záporné korelace. Jak bylo uvedeno výše, aktiva jsou v posledních letech více korelovaná. Americká bankovní a burzovní společnost Charles Schwab prozkoumala korelace pro čtyři třídy kapitálových aktiv během tří různých časových období. Zmiňovanými třídami aktiv byly akcie velkých amerických společností (US1), akcie malých amerických společností (US2), akcie velkých mezinárodních společností (IN) a akcie společností působících v rámci rozvíjejících se finančních trhů (EM).

Tabulka 1: Vývoj korelací čtyř různých tříd aktiv

1995-2000					2001-2007					2008-2013				
US1	1				US1	1				US1	1			
US2	0,62	1			US2	0,62	1			US2	0,62	1		
IN	0,69	0,6	1		IN	0,69	0,6	1		IN	0,69	0,6	1	
EM	0,67	0,64	0,71	1	EM	0,67	0,64	0,71	1	EM	0,67	0,64	0,71	1

Zdroj: zpracováno na základě Charles Schwab Investment Advisory

Výsledky prezentované v tabulce 1 ukazují, že korelace obecně rostou od roku 1995-2000. To znamená, že přínosy spojené s diverzifikací se časem snižují. Je evidentní, že korelace rostou kvůli větší vzájemné propojenosti mezi globálními trhy. Nadnárodní korporace se rozšiřovaly do takové míry, že to, co se děje v Evropě a Asii, ovlivňuje americké trhy a naopak. Rovněž mnoho neamerických společností závisí na poptávce amerických spotřebitelů. Navíc, vyšší propojenost trhů je bezesporu způsobena také neustále rostoucím možnostem přístupu k informacím. V roce 2008 vzrostly korelace v důsledku globální úvěrové krize. Pokud se podíváme na historii finančních trhů, tak zjistíme, že korelace mají tendenci růst v době krize, viz například McNeil et al. (2007). Přestože již od finanční krize uplynula poměrně delší doba, lze předpokládat, že korelace na akciových trzích zůstanou nadále vyšší.

3.2 Asymetrie a dynamika závislostí

Kromě toho lze v poslední letech rovněž spatřovat další „anomálie“ v závislostech, kterými jsou korelace asymetrie a dynamika v závislostech. Zájem o asymetrii závislostí se v literatuře objevuje na počátku minulého desetiletí, viz například Ang a Chen (2002). Uvědomění si přítomnosti asymetrické závislosti je podle Okimota (2008) velmi důležité, protože může způsobit vážné problémy v případě zajištění a diverzifikace portfolia. Jde o to, že ignorací asymetrie závislostí se investor vystavuje problémům vyplývajících z podcenění skutečného rizika, kdy není uvažováno riziko nacházející se na chvostech rozdělení výnosů – tedy možnosti výskytu extrémně vysokých ztrát, viz například Hong et al. (2007).

Asymetrie závislostí na jednotlivých finančních trzích byla v posledních letech poměrně dobře specifikována. Například Patton (2006) nebo Czado et al (2012) uvádějí, že na devizových trzích je tato asymetrie způsobená asymetrickou reakcí centrálních bank na pohyby směnných kurzů. V případě akciových trhů nepanuje jednoznačná shoda ohledně ekonomických příčin asymetrické závislosti, viz například Cappiello et al. (2006), Sun et al. (2008) nebo Cerrato et al. (2015). Navzdory tomu většina autorů vidí jako jeden z hlavních důvodů chování rizikově averzních investorů, jejichž hodnotová funkce není dle prospektové teorie symetrická, tj. ztráty snášejí investoři hůře než zisky, a to i v případě, že jsou stejného rozsahu, viz například Holt a Laury (2002). Ačkoliv je znalost vzájemného vztahu a případné asymetrie závislostí mezi výše uvedenými trhy pro zajištění a diverzifikaci portfolia klíčová, tak této problematice bylo doposud věnováno daleko méně pozornosti. Celkově lze říci, že rozpoznat míru intenzity změny struktury závislostí ve sledovaném portfoliu je klíčovým úkolem současných portfolio manažerů.

Vzhledem ke stále rostoucímu množství aktiv obsažených v portfoliích finančních i nefinančních institucí roste potřeba použití nástrojů pro popis mnohorozměrných závislostních struktur. V souvislosti s tím se v přímé úměře zvyšuje použitelnost tzv. kopul. Kopule představují funkce navržené Sklarem (1959), jež zobrazují mnohorozměrné rozdělení výnosů aktiv v portfoliu do jejich jedno-rozměrných marginálních rozděleních. Jedná se o velmi silný nástroj pro modelování závislostí, pracující na základě kvantilového aparátu, a tedy není vyžadováno splnění předpokladu společné normality jednotlivých rozdělení, viz například Nelsen (2006). Tedy kopule jsou schopny popsat závislosti nejen v případě normálních tržních podmínek, ale také i při výskytu extrémních událostí. Dále s pomocí kopulí lze vybudovat flexibilní vnitropodnikový přístup pro popis různě specifikovaných závislostních struktur, konkrétně pro zachycení jak negativních, tak pozitivních závislostí a rovněž schopnost identifikovat symetrické a stejně tak asymetrické závislosti, stejně jako závislosti alokované ve chvostech příslušných rozděleních. McNeil et al (2015) poskytují ucelený přehled v současné době používaných aplikací různých typů kopulí.

V současné době aktuální problém nekonstantnosti struktury závislostí v čase stojí za vznikem a rozvojem dynamických kopul. Časovou proměnlivostí ve struktuře závislostí se nejprve zabýval Engle (2002), jež navrhl model dynamické podmíněné korelace (DCC). Dynamikou v souvislosti s kopulemi se začal později zabývat Patton (2006), jež poskytl rozšíření Sklarova návrhu se zaměřením na podmíněné kopule. Další modely pro kopule s v čase proměnlivými parametry navrhli Giacomini et al (2007), jež zavádí modely s lokálně konstantními parametry. Dále Hafner a Manner (2011) poskytují model dynamické kopuli, jejichž hodnoty parametrů splňují stochastický proces. Pro odhad parametrů pak používají nástroje bayesovské statistiky. Clear et al (2013) přicházejí s novým pohledem na modelování dynamických kopulí. Jimi navrhovaný model zobecněného autoregresního skóre (GAS) provádí aktualizace v čase měnících se parametrů dynamických kopul na základě věrohodnostní funkce. GAS model patří v současné době k velmi populárním nástrojům pro modelování dynamických kopulí, viz například Blasques et al (2014), Blasques a Lucas (2016) nebo Koopman et al (2016).

3.3 Zvýšené vnější šoky

Jedním z hlavních důsledků globální propojenosti je vyšší míra zasažení trhů více vnějšími otřesy. V posledních letech došlo k nárůstu velkých tržních šoků. Události, jako je evropská dluhová krize, japonská vlna tsunami v roce 2011 nebo změna vlády na Ukrajině, zasáhly investory a ovlivnily výhled pro společnosti po celém světě. Dalším faktorem, který přispívá k této dynamice, je, jak rychle se informace šíří na trzích a mezi nimi. Jednotliví investoři mají v současné době přístup k informacím, které byly dříve k dispozici pouze velkým institucionálním investorům. Zajišťovací fondy a obchodníci s vysokou frekvencí mohou okamžitě reagovat na zprávy a vytvářet velké změny v jednotlivých akcích a tržních segmentech. Tato tendence reagovat rychle na novinky přispívá k vyšší volatilitě trhu v době krize.

4 ZÁVĚR

Alokace aktiv tvoří základ investiční filozofie. Cílem této investiční techniky je diverzifikace portfolia mezi různé typy aktiv, jako jsou akcie, obligace, peněžní ekvivalenty, vzácné kovy, nemovitosti a inkasovatelné pohledávky. Někteří autoři zpochybňují hodnotu alokace aktiv a výhody moderní teorie portfolia (MPT), která uvádí, že optimální portfolia mohou být vytvořena uvážením vztahu mezi rizikem a výnosností. Je důležité si uvědomit, že alokace aktiv stále pomáhá investičním portfoliím, a to i v době nechtěného vývoje na trhu. Vzhledem k novým tržním skutečnostem, které se objevily v souvislosti s poslední finanční krizí, je nutné, aby se MPT neustále vyvíjela. Ke zmiňovaným novým skutečnostem lze řadit především vyšší korelovatelnost aktiv, asymetrie a dynamika závislostí nebo zvýšené vnější šoky.

Použitá literatura

1. ALEXANDER, C. *Market Risk Analysis, Volume II, Practical Financial Econometrics*. New York: John Wiley & Sons Ltd. 2008.
2. ANG, A., CHEN, J. Asymmetric correlations of equity portfolios. *Journal of Financial Economics*. 2002, vol. 63, no. 3, pp. 443-494.
3. BLASQUES F, KOOPMAN S. J., LUCAS, A. Stationarity and Ergodicity of Univariate Generalized Autoregressive Score Processes. *Electronic Journal of Statistics*. 2014, vol. 8, no. 1, pp. 1088–1112.
4. BLASQUES, F., JI, J., LUCAS, A. Semiparametric Score Driven Volatility Models. *Computational Statistics and Data Analysis*. 2016, vol. 100, pp. 58 - 69

5. BROOKS, C. *Introductory econometrics for finance*. Cambridge: Cambridge University Press. 2008.
6. BURNSIDE, C. Carry trades and risk. In *The Handbook of Exchange Rates*, JAMES, J., MARSH, I.W., SARNO, L, eds. New Jersey: Wiley. 2011.
7. CAPPIELLO, L., ENGLE, R. F., SHEPPARD, K. Asymmetric Dynamics in the Correlations of Global Equity and Bond Returns. *Journal of Financial Econometrics*. 2006, no. 4, pp. 537–572.
8. CERRATO, M., CROSBY, J., KIM, M., ZHAO, Y. Modeling Dependence Structure and Forecasting Market Risk with Dynamic Asymmetric Copula. *Social Science Research Network*. 2015.
9. CHRISTOFFERSEN, P., ERRUNZA, V., JACOBS, K., LANGLOIS, H. Is the Potential for International Diversification Disappearing? A Dynamic Copula Approach. *Review of Financial Studies.* 2012, vol. 25, no. 12, pp. 3711-3751.
10. CZADO, C. SCHEPSMEIE, U., MIN, A. Maximum Likelihood Estimation of Mixed C-Vines with Application to Exchange Rates. *Statistical Modelling*. 2012, vol. 12, no. 3, pp. 229–255.
11. EMBRECHTS, P., WANG, R. Seven proofs for the subadditivity of Expected Shortfall. *Dependence Modeling*. 2015, vol. 3, pp. 126–140.
12. FISSLER, T., ZIEGEL, J. Higher order elicitability and Osband's principle. *Ann. Statist*. 2016, no. 44, pp. 1680-1707.
13. FRIEND, I., WESTERFIELD, R. Co-Skewness and Capital Asset Pricing. *The Journal of Finance*. 1980, vol. 35, no. 4, pp. 897-913.
14. FRITTELLI, M., MAGGIS, M., PERI, I. Risk measures on P(R) and Value at Risk with Probability/Loss function. *Mathematical Finance*. 2014, no. 24, pp. 442-463.
15. GENEST, C., GHOUDI, K., RIVEST, L. P. A Semiparametric Estimation Procedure of Dependence Parameters in Multivariate Families of Distributions. *Biometrika*. 1995, no. 82, pp. 543-552.
16. GLOSTEN, L.R., JAGANNATHAN, R., RUNKLE, D. On the Relation between The Expected Value and the Volatility of the Nominal Excess Return on Shocks. *Journal of Finance*. 1993, no.48, pp.1779-1801.
17. Hong, Y., Tu, J., & Zhou, G. (2007). Asymmetries in stock returns: Statistical tests and economic evaluation. Review of Financial Studies, 20(5), 1547-1581.
18. JONDEAU, E., POON, S. H., ROCKINGER, M. *Financial Modeling under N on-Gaussian Distributions*. Springer Science & Business Media. 2007.
19. KOOPMAN, S. J., LUCAS, A., SCHARTH, M. Predicting Time-Varying Parameters with Parameter-Driven and Observation-Driven Models. *Review of Economics and Statistics*. 2016, vol. 98, no. 1, pp. 97-110.
20. KRAUS, A., & LITZENBERGER, R. H. Skewness Preference and the Valuation of Risk Assets. The *Journal of Finance*. 1976, vol. 31, no. 4, pp. 1085-1100.
21. KRATZ, M., LOK, H. Y., MCNEIL, A. J. *Multinomial VaR Backtests: A Simple Implicit Approach to Backtesting Expected Shortfall*. Dostupné z: https://arxiv.org/pdf/1611.04851.pdf
22. MARKOWITZ, H. Portfolio Selection. *The Journal of Finance*. 1952, vol. 7, no. 1, pp. 77-91.
23. NELSON, D. B. Conditional Heteroskedasticity in Asset Returns: A New Approach. *Econometrica*. 1991, no. 59, pp. 347–370.
24. NELSEN, R. B. *An introduction of copulas*. New York: Springer, 2006.
25. OSBAND, K. H. *Providing Incentives for Better Cost Forecasting*. University of California, Berkeley, 1985.

26. PALMQUIST, J., URYASEV S. Portfolio Optimization with Conditional Value-at-Risk Objective Constraints, *The Journal of Risk*. 2002, vol. 4, no. 2.
27. PATTON, A. J. Modelling Asymmetric Exchange Rate Dependence. *International Economic Review*. 2006, no. 47, pp. 527-556.
28. PATTON, A. J. Copula methods for forecasting multivariate time series. In *Handbook*
29. *of Economic Forecasting*. 2012, no. 2, pp. 899-960.
30. ROCKAFELLAR, T. R., URYASEV, S. Optimization of Conditional Value-at-Risk, *Journal of Risk*. 2000, vol. 2, no. 3.
31. SKLAR, A. Fonctions de Répartition à n Dimensions et Leurs Marges. *Publications de l'Institut Statistique de l'Université de Paris*. 1959, no. 8, pp. 229-231.

Kontaktní údaje

Mgr. Tomáš Jeřábek, MBA
Katedra ekonomie
Vysoká škola obchodní a hotelová
Bosonožská 9
625 00 Brno
email: jerabek@hotskolabrno.cuz

Ing. Zdeněk Málek, Ph.D.
Katedra gastronomie
Vysoká škola obchodní a hotelová
Bosonožská 9
625 00 Brno
email: malek@hotskolabrno.cuz

prof. PhDr. Vladimír Šefčík, CSc.
Katedra ekonomie
Vysoká škola obchodní a hotelová
Bosonožská 9
625 00 Brno
email: sefcik@hotskolabrno.cuz

doc. Ing. Jana Štofilová, CSc.
Katedra ekonomie
Vysoká škola obchodní a hotelová
Bosonožská 9
625 00 Brno
email: stofilova@hotskolabrno.cuz

MOŽNÉ PŘÍSTUPY KE ZPĚTNÉMU TESTOVÁNÍ RIZIKOVÉ MÍRY EXPECTED SHORTFALL

POSSIBLE APPROACHES TO BACK-TESTING OF EXPECTED SHORTFALL

Tomáš Jeřábek

Abstrakt
Rizikové míry hrají významnou roli při výpočtu regulatorního kapitálu, který je nutný k zajištění finanční stability každé bankovní instituce. Z tohoto důvodu jsou intenzivně studovány postupy zpětného testování a statistické vlastnosti odhadů rizik a techniky odhadu jsou neustále zlepšovány. V rámci příspěvku za účelem zpětného testování aplikujeme metodiku založenou na ztrátové funkci. Cílem je ověřit výkonnost této metodiky v rámci akciového portfolia.

Klíčová slova: *Expected Shortfall, zpětné testování, finanční instituce*

Abstract
Risk measures play an important role in the calculation of the regulatory capital required to ensure the financial stability of each banking institution. For this reason, back-testing procedures are intensively studied, and the statistical properties of risk estimates and estimation techniques are continually being improved. We apply a method based on a loss function as part of the retrospective contribution. The aim is to verify the performance of this methodology within the equity portfolio.

Key words: *Expected Shortfall, Backtesting, Financial institutions*

1 ÚVOD

Rizikové míry hrají významnou roli při výpočtu regulatorního kapitálu, který je nutný k zajištění finanční stability každé bankovní instituce. Z tohoto důvodu musí regulátor zajistit, aby metodika odhadu rizika přijatá institucí byla do určité míry konzervativní a aby modelem získané výstupy byly robustní, viz například Alexander (2009) nebo McNeil et al. (2010). Postup zpětného testování je klíčovým kvantitativním nástrojem, který používají regulátoři k posouzení konzervativnosti metodiky měření rizik. Z tohoto důvodu jsou intenzivně studovány postupy zpětného testování a statistické vlastnosti odhadů rizik a techniky odhadu jsou neustále zlepšovány, viz například Davis (2016), Acerbi a Szekely (2014) nebo Frank (2016). V současné době jsou středem zájmu dvě rizikové míry, a to Value-at-Risk (VaR) a Expected Shortfall (ES). Diskuse kolem zpětného testování uvedených rizikových měr je stimulována nedávným vývojem v oblasti regulace, stejně jako rozšíření konceptu elicitability, viz například Acerbi a Szekely (2017). Zejména aktualizace basilejské metodiky kapitálových požadavků v rámci Basel III vzbudila obavy z důvodu nahrazení VaR na 1% úrovni významnosti s ES na 2,5% úrovni významnosti; viz BCBS (2016). Hlavním předmětem kritiky je použití regulatorního zpětného testování Expected Shortfall, založeného na postupu výjimek (porušení), jako je to realizováno v rámci VaR. Ovšem tento způsob zpětného testování je sice aplikovatelný v souvislosti s VaR, ovšem vzhledem problémům ES s elicitabilitou, není možné tento způsob backtestingu aplikovat právě na tuto rizikovou míru.

Koncept tzv. elicitability byl představen Osbandem (1985) a dále rozvinut Lambertem et al. (2008). Jedná se o vlastnost modelu, která je velmi důležitá pro hodnocení jeho předpovědní výkonnosti. Vzhledem k tomu, že zpětné testování není nic jiného než právě hodnocení predikčních schopností modelu, měla by být elicitabilita požadovanou vlastností rizikových měr. Ovšem jak ukázal Gneiting (2011), ES oproti VaR není elicitabilní a tedy není na tuto míru možné aplikovat stejné postupy backtestingu jako na VaR. Toto zjištění bylo mnoha autory interpretováno jako důkaz, že není možné podporovat ES jako rizikovou míru určenou pro výpočet kapitálových požadavků. Na druhé straně v Acerbi a Szekely (2014) uvádějí, že elicitabilita je spojena spíše s porovnáním modelů než s jejich testováním, a tedy nedostatek elicitability není rozhodující při zvažování zpětného testování. Kromě toho bylo Fisslerem a Ziegelem (2016) prokázáno, že ES je společně s VaR elicitabilní, pro podrobnosti viz například Nolde a Ziegel (2017) nebo Acerbi a Szekely (2017). Nakonec je třeba poznamenat, že definice nebo přesněji řečeno koncepce zpětného testování není jednotná, takže prohlášení jako „*zpětné testování ES je (není) možné*“ jsou pouze více subjektivními názory než vědeckými fakty.

V rámci příspěvku za účelem zpětného testování aplikujeme metodiku založenou na ztrátové funkci dle Lopez (1999). Cílem příspěvku je ověřit výkonnost této metodiky v rámci akciového portfolia.

2 ZPĚTNÉ TESTOVÁNÍ VAR A ES

Běžně používanými metodami pro verifikování odhadů VaR jsou tzv. testy selhání navržené Kupiecem (1995). Za účelem představení těchto testů definujme počet selhání VaR, ve kterém skutečná ztráta převyšuje získaný odhad VaR, přičemž platí, že pokud je daný VaR model korektně specifikován, měl by poměr těchto selhání k počtu realizovaných odhadů konvergovat k hodnotě α, kde $1-\alpha$ představuje hladinu spolehlivosti použitého VaR.
Pro bližší specifikaci uvažujme nyní i-tý odhad VaR v rámci celkového počtu T odhadů, realizovaných v časech $t = 1, \dots, T$. Vzhledem ke zpětnému testování nás v rámci i-tého odhadu zajímají pouze dva jeho stavy, a to zda selhal, tj. odhad je menší než skutečná ztráta realizovaná v čase $t = i$, nebo neselhal a tedy platí opak (odhad je větší než skutečná realizovaní ztráta). Pokud nyní budeme uvažovat i jako hodnoty náhodné veličiny I, pak z výše uvedeného plyne, že tato náhodná veličina nabývá pouze dvou hodnot, konkrétně označme hodnotu 1 pro stav, kdy dochází k selhání a hodnotu 0 pro druhý stav. Tedy pro veličinu I platí následující

$$I_t = \begin{cases} 1 & r_t < \widehat{VaR_t} \\ 0 & r_t \leq \widehat{VaR_t} \end{cases}, \tag{1}$$

kde r_t představuje skutečný výnos, resp. ztrátu v čase t a $\widehat{VaR_t}$ je odhad ztráty v čase t realizovaný příslušným VaR modelem pro $t = 1, \dots, T$. Ze statistického pohledu lze o této veličině říci, že má tzv. alternativní rozdělení. Vzhledem k vlastnostem alternativního rozdělení platí, že celkový počet všech selhání v rámci všech T odhadů má tzv. binomické rozdělení, pro jehož pravděpodobnostní funkci v tomto případě platí

$$P(\text{počet selhání} = i) = \binom{T}{i} (1-p)^i p^{T-i} \tag{2}$$

kde $p = \alpha$, tj. hladina významnosti VaR. Představené binomické rozdělení patří do skupiny diskrétních rozdělení, jinými slovy lze říci, že se vztahuje pouze k diskrétním náhodným veličinám. Ovšem vzhledem k realizaci zpětného testování je nutné počet selhání uvažovat

jako spojitou náhodnou veličinu. K tomuto účelu lze využít tzv. centrální limitní větu, podle níž lze pro dostatečně velká T aproximovat náhodnou veličinu s binomickým rozdělením pravděpodobnosti prostřednictvím normálně rozdělené náhodné veličiny $X \sim N\big(np, np(1-p)\big)$. Následným převedením X do podoby náhodné veličiny Z s normovaným normálním rozdělením, získáváme pro $z \in Z$ následující tvar

$$z = \frac{x - pT}{\sqrt{p(1-p)T}}. \tag{3}$$

Pokud nyní vezmeme do úvahy hustotu uvedené náhodné veličiny Z, pak nepodmíněná logaritmická věrohodnost počtu selhání lze vyjádři ve tvaru

$$LR_{UC} = -2\ln\left[(1-p)^{T-i}p^{i}\right] + 2\ln\left(\left[1-\left(\frac{i}{T}\right)\right]^{T-i}\left(\frac{i}{T}\right)^{i}\right), \tag{4}$$

jež má chí-kvadrát rozdělení s jedním stupněm volnosti. Statistika LR_{UC} se označuje jako nepodmíněný Kupiecův test (UC test).

Hlavní omezení uvedeného testu spočívá v jeho nepodmíněnosti. Jde o to, že hodnotí pouze počty selhání, bez sledování jejich závislosti v čase. Zde je třeba poznamenat, že v rámci zpětného testování je důležité, aby jednotlivá selhání byla v čase nezávislá a rovnoměrně rozprostřena. Tak například, jestliže VaR model má v rámci jednoho roku a v případě 95% spolehlivosti požadovanou míru selhání, pak z hlediska UC testu je daný model považovaný za validní. Ovšem pokud například během deseti obchodních dnů došlo k deseti selháním, pak tento jev není možné UC testem zachytit – přitom tato informace je pro hodnocení VaR velmi důležitá. Jde o to, že koncentrace selhání indikuje potenciální rizikovost hodnoceného modelu.

Na základě uvedeného omezení UC testu vyvinul Christofferen (1998) tzv. test podmíněného pokrytí, jež spočívá v kontrole, zda jednotlivá selhání jsou navzájem v čase nezávislá. Testovací statistika uvedeného testu vychází z podmíněné logaritmické věrohodnosti počtu selhání a nabývá tvaru

$$LR_{ind} = -2\ln[(1-\pi)^{n_{00}+n_{10}}\pi^{n_{01}+n_{11}}] + 2\ln[(1-\pi_0)^{n_{00}}\pi_0^{n_{01}}(1-\pi_1)^{n_{10}}\pi_1^{n_{11}}], \tag{5}$$

kde $\pi_i = P(I_t = 1 | I_{t-1} = i)$, tj. jedná se o pravděpodobnost, že odhad v čase t selhává, za podmínky, že odhad v čase t neselhal (pro π_0), resp. selhal (pro π_1). Dále n_{ij} představuje počet pozorování, jež jsou v čase t ve stavu j a v čase $t-1$ ve stavu i. Následně pro pravděpodobnost π platí

$$\pi = \pi_0 + \pi_1 = \frac{n_{01}+n_{11}}{T}. \tag{6}$$

První sčítanec na pravé straně rovnice (5.130) reprezentuje věrohodnost pod předpokladem, že selhání jsou napříč všemi dny vzájemně nezávislá (tj. splňují požadované podmíněné pokrytí) a druhá část (5.130) pak vyjadřuje věrohodnost celkového vzorku pozorovaných dat (tj. požadované nepodmíněné pokrytí). Rovněž u tohoto testu má testovací statistika chí-kvadrát rozdělení s jedním stupněm volnosti.

Oba předchozí testy lze spojit do jednoho statistického testu, jež ověřuje jak počet selhání, tak jejich nezávislost v čase. Jedná se kombinovaný podmíněný test (CC), pro jehož testovací statistiku platí

$$LR_{CC} = LR_{UC} + LR_{IND} \quad (7),$$

a která má chí-kvadrát rozdělení se dvěma stupni volnosti.
V souvislosti se zpětným testováním ES je nutné zmínit koncept tzv. elicitability, jež byl představen Osbandem (1985) a dále rozvinut Lambertem et al. (2008). Jedná se o vlastnost modelu, která je velmi důležitá pro hodnocení jeho předpovědní výkonnosti. Vzhledem k tomu, že zpětné testování není nic jiného než právě hodnocení predikčních schopností modelu, měla by být elicitabilita požadovanou vlastností rizikových měr. Ovšem jak ukázal Gneiting (2011), ES oproti VaR není elicitabilní.

Za účelem hodnocení předpovědní výkonnosti ES uvažujeme odhady $\widehat{ES}_1, \dots, \widehat{ES}_T$. Vyhodnocení přesnosti předpovědí je založeno na ztrátové funkci, která umožňuje seřadit modely podle jejich výkonnosti. Za tímto účelem definujeme ztrátovou funkci ve tvaru

$$LF_t = \left| r_t - \widehat{ES}_t \right| I_t, \quad (8)$$

kde I_t představuje hodnotu náhodné veličiny I v čase t vyjádřená vztahem (5.126). Následně jsou jednotlivé modely hodnoceny na základě tzv. průměrné absolutní chyby (MAE), pro jejíž hodnotu platí

$$MAE = \frac{1}{T} \sum_{t=1}^{T} LF_t. \quad (9)$$

Toto hodnocení je v souladu s rámcem navrženým Lopezem (1998). Ještě doplňme, že přesnost modelu roste se snižujícím se MAE.

3 DATA

Výsledky jsou prezentovány prostřednictvím aplikace čtyř výnosových řad, konkrétně dvou akciových indexů, a to Dow Jones Euro Stoxx 50, jež měří výkonnost 50 akciových titulů předních společností v Eurozóně a dále akciový index S&P 500, tvořený 500 akciovými tituly většinou amerických společností a dále dvou měnových kurzů, a to USD/EUR a JPY/EUR.

Vzorek dat pokrývá období od 1.1.2003 do 31.8.2016 a data jsou vyjádřena ve formě denních výnosů. Tabulka 5.6 prezentuje základní popisné statistiky pro výnosy obou indexů, za období pokrývající předkrizové, krizové a pokrizové období. Z uvedené tabulky je patrná téměř nulová střední hodnota obou výnosů, směrodatná odchylka je dle očekávání nejvyšší v krizovém období. Co se týče šikmosti, tak je většinou záporná, což odpovídá charakteristickému chování výnosových řad – a sice převahu extrémních ztrát nad extrémními výnosy. Výjimku tvoří pouze americký index v předkrizovém období a evropský index v krizovém období. V případě amerického indexu se ovšem jedná o téměř nulovou šikmost a tedy lze již hovořit o symetrickém rozdělení – viz grafy na obrázku 6.3. Kladná hodnota šikmosti pro výnosy evropského indexu je dána prostou převahou ztrát nad výnosy bez výskytu extrémních hodnot. Standardizovaná špičatost je nejvyšší pro krizové období.

Tabulka 1: Hodnoty popisná statistika použitých výnosů akciových indexů

	SP 500	DJES	SP 500	DJES	SP 500	DJES
	Předkrizové období		krizové období		postkrizové období	
Průměr	0,0004	0,0005	0,0000	-0,0005	0,0004	0,0003
Medián	0,0007	0,0006	0,0009	-0,0003	0,0004	0,0005
Min	-0,0359	-0,0569	-0,0947	-0,0821	-0,0402	-0,0901
Max	0,0348	0,0655	0,1096	0,1044	0,0383	0,0487
Směr. odch.	0,0082	0,0115	0,0166	0,0178	0,0082	0,0128
Šikmost	0,0031	-0,0747	-0,2473	0,0820	-0,3497	-0,3858
Špičatost	1,2464	4,0779	6,6826	4,5173	2,2129	3,3983

Z výše uvedené analýzy plyne, že výnosy uvedených řad jsou v rámci sledovaných časových úseků ovlivněny jak v čase měnící se střední hodnotou, tak proměnlivým rozptylem. Tedy jednotlivé výnosy mohu být modelovány prostřednictvím rovnice

$$r_t = \mu_t + \sigma_t z_t, \tag{10}$$

kde z_t představuje náhodnou veličinu s identicky a nezávisle rozdělenými hodnotami. Pro eliminaci vlivu podmíněné střední hodnoty μ_t použijeme autoregresní model prvního řádu AR(1) navržený Boxem a Jenkinsem (1970).

Za účelem modelování σ_t jsou použity různé přístupy. Konkrétně uvažujeme EWMA model, jež předpokládá, že z_t má normální rozdělení. Dále pak GJR-GARCH(1,1) model. V tomto případě pro z_t předpokládáme postupně normální, Studentovo a sešikmené Studentovo rozdělení. Uvedené GARCH modely rovněž odhadujeme ve spojení s EVT přístupem, založeným na zobecněném Paretovu rozdělení.

4 VÝSLEDKY

Dále nepracujeme s celou výše uvedenou datovou oblastí, ale pouze z její podmnožinou zahrnující výnosy sledovaných řad za období od 2.1.2007 do 31.12.2014, přičemž data z prvního použitého roku, tj. 250 hodnot, představují tzv. trénovací vzorek, na základě něhož jsou odhadnuty parametry potřebné pro vytvoření odhadů na následující obchodní den. Zbývající část slouží pro kontrolu získaných 1-denních VaR a ES odhadů. Konkrétně, nejprve je tímto způsobem získán odhad odpovídající 251. hodnotě. Následně se trénovací vzorek posune o hodnotu 1 doprava, tj. zahrnuje 2. až 251. hodnotu a odhadujeme VaR pro 252. hodnotu. Takto postupujeme dále až na předposlední hodnotu datového vzorku a odhadujeme VaR a ES pro poslední den použité časové řady. Předpovědní vzorek je volen tak, aby bylo možné srovnávat přesnost získaných odhadů především v krizovém a pokrizovém období. Celkový rozsah předpovědního vzorku je 1750 hodnot. Za účelem celkového srovnání uvádí tabulka 2 počty selhání sledovaných VaR přístupů, indikovaných UC a CC testem. Pokud jako indikátor kvality testu uvažujeme maximální počet selhání napříč testy, pak výsledky ukazují na jasnou preferenci přístupů s aplikací modelu podmíněné volatility. Konkrétně na nižší úrovni spolehlivosti vykazuje nejlepší výkon parametrický přístup s aplikací GJR-GARCH modelu se Studentovým rozdělením reziduí. V rámci 99% úrovně spolehlivosti jsou pak výsledky přístupů s aplikací GJR-GARCH podobné.

*Tabulka **Chyba! V dokumentu není žádný text v zadaném stylu.**.1: Výsledky zpětného testování*

	0,05		0,01	
	UC	CC	UC	CC
VC	0	3	4	1
EWMA	2	3	3	2
HS250	0	3	2	3
HS500	3	3	2	3
FHS	2	0	2	1
GJR-G-n	0	2	0	2
GJR-G-t	0	0	0	2
GJR-G-st	1	0	0	2
GJR-G-evt	1	1	0	3

Zdroj: vlastní zpracování

V návaznosti na odhady VaR byly získány odhady ES. Za účelem zpětného testování odhadů ES je použita průměrné absolutní odchylka. Výsledné hodnoty představuje tabulka 3. Nejnižší odchylky jsou výrazně orámovány. Modely náležící k těmto hodnotám lze považovat za nejvýkonnější. Nejvyšší odchylky jsou vyznačeny tučně. Z tabulky je patrné, že v naprosté většině případů poskytuje nejlepší výsledky parametrický přístup s aplikací GJR-GARCH se Studentovým rozdělením reziduí. Tedy výsledky v rámci hodnocení ES odhadů jsou ve shodě s VaR odhady. Dále poznamenejme, že aplikace podmíněné volatility poskytuje přesnější odhady ES, oproti tradičním přístupům. Tabulka 4 představuje celkové pořadí jednotlivých metod při realizaci ES odhadů. Obsah tabulky tvoří hodnoty průměrné absolutní odchylky napříč všemi analyzovanými řadami, druhý sloupec pak ke každé hodnotě přiřazuje pořadovou hodnotu v rámci vzestupného seřazení. Jak v 95%, tak v 99% úrovni spolehlivosti dosahuje nejlepšího výkonu aplikace modelu podmíněné volatility se Studentovým rozdělením, na následujících místech jsou uvedeny aplikace zbývajících modelů podmíněné volatility, přičemž v rámci 95% spolehlivosti se jako druhý nejlepší jeví model s normálním rozdělení a vyšší úrovni spolehlivosti pak model se sešikmeným Studentovým rozdělením. Poslední příčky hodnotícího žebříčku zaujímají standardní modely s tím, že jako nejhorší model se pro nižší úroveň spolehlivosti jeví historická simulace HS250 a pro 99% spolehlivost pak základní parametrický přístup.

Tabulka 3: Hodnoty průměrné absolutní odchylky odhadů ES

	0,05		0,01	
	SP	DJES	SP	DJES
VC	0,0642	0,0666	**0,0304**	**0,0325**
EWMA	0,0479	0,0516	0,0153	0,0155
HS250	0,0593	0,0665	0,0176	0,0180
HS500	**0,0691**	**0,0908**	0,0216	0,0263
FHS	0,0423	0,0547	0,0124	0,0126
GJR-G-n	0,0294	0,0431	0,0041	0,0094
GJR-G-t	0,0246	0,0351	0,0024	0,0068
GJR-G-st	0,0265	0,0387	0,0029	0,0078
GJR-G-evt	0,0272	0,0399	0,0030	0,0082

Zdroj: vlastní zpracování

Pokud nyní shrneme výsledky VaR a ES, pak v případě obou měr dochází k zpřesnění odhadů při aplikaci modelů podmíněné volatility. Tradiční přístupy jako VC, EWMA a historická simulace jsou sice jednodušší, ovšem mají většinou tendenci k nepřesnostem, a to v podobě především podhodnocování skutečného rizika. Zapojení modelů podmíněné volatility do parametrického přístupu k odhadu VaR, stejně jako ES, výrazněji zpřesňuje získané výsledky a dosahuje nejlepšího výkonu. Aplikace modelů podmíněné volatility v rámci neparametrického přístupu, v podobě filtrovaná historická simulace, sice dobře reaguje na větší tržní výkyvy, ovšem je málo flexibilní v reakci na zklidnění úrovně tržního rizika, kdy má tendenci výrazněji nadhodnocovat skutečné ztráty.

Tabulka 4: Výkonnost ES dle MAE

	0,05		0,01	
	Min MAE	Pořadí	Min MAE	Pořadí
VC	0,0211	7	0,0087	9
EWMA	0,0232	8	0,0056	6
HS250	0,0255	9	0,0073	7
HS500	0,0174	6	0,0081	8
FHS	0,0161	4	0,0034	4
GJR-G-n	0,0148	3	0,0036	5
GJR-G-t	0,0161	1	0,0024	1
GJR-G-st	0,0158	2	0,0029	2
GJR-G-evt	0,0161	4	0,0030	3

Zdroj: vlastní zpracování

5 ZÁVĚR

Rizikové míry hrají významnou roli při výpočtu regulatorního kapitálu, který je nutný k zajištění finanční stability každé bankovní instituce. Z tohoto důvodu musí regulátor zajistit, aby metodika odhadu rizika přijatá institucí byla do určité míry konzervativní a aby modelem získané výstupy byly robustní. Jako jeden z možných přístupů se jeví jednoduchá metodika založená na aplikaci ztrátových funkcí. Výkonnost tohoto metodického rámce pro zpětné testování spočívá v jeho jednoduchosti, eleganci a v poměrně jednoduché interpretaci. Výsledky ukazují, že metoda založená na aplikaci ztrátových funkcí, konkrétně přístup vycházející z výpočtu střední absolutní chyby získaných odhadů. Výsledky ukazují, že uvedený přístup poskytuje srovnatelné výsledky s metodiko zpětného testování vycházející z Value at Risk.

Poděkování

Tento příspěvek vznikl na Vysoké školy finanční a správní v rámci projektu „Nové možnosti a přístupy pro měření a řízení tržních rizik“ číslo 7427/2017/05 podpořeného z prostředků účelové podpory na specifický vysokoškolský výzkum.

Použitá literatura

1. ACERBI, C., SZEKELY, B. Back-testing expected shortfall. [online] Risk magazine, 2014. [cit. 14.11.2017]. Dostupné z: https://www.msci.com/documents/10199/22aa9922-f874-4060-b77a-0f0e267a489b

2. ACERBI, C., SZEKELY, B. General properties of backtestable statistics. [online] 2017.[cit. 24.11.2017]. Dostupné z: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2905109_code1427254.pdf?abstractid=2905109&mirid=1
3. ALEXANDER, C. (2009), Market Risk Analysis, Value at Risk Models, Vol. 4, John Wiley & Sons.
4. BCBS - Basel Committee on Banking Supervision (2016), Minimum capital requirements for market risk, Technical report, Bank for International Settlements.
5. DAVIS, M. Verification of internal risk measure estimates', *Statistics & Risk Modeling*. 2016, vol. 33, no. 1, s. 67 – 93.
6. FISSLER, T., ZIEGEL, J. F. Higher order elicitability and osband's principle. *The Annals of Statistics*. 2016, vol. 44, no. 4, s. 1680–1707.
7. Frank, D. (2016), 'Adjusting var to correct sample volatility bias', Risk magazine (October).
8. GNEITING, T. Making and evaluating point forecasts. *Journal of the American Statistical Association*. 2011, vol. 106, no. 494, s. 746–762.
9. LOPEZ, J. A. Methods for Evaluating Value-at-Risk Estimates. [online]. *Economic Policy Review*. 1998, vol. 4, no. 3, s. 119-124. [cit. 19. 8. 2017]. Dostupné z: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1029673_code658905.pdf?abstractid=1029673&mirid=1
10. MCNEIL, A. J., FREY, R., EMBRECHTS, P. *Quantitative Risk Management: Concepts, Techniques, and Tools*. Princeton University Press, 2010.
11. NOLDE, N., ZIEGEL, J. Elicitability and backtesting: Perspectives for banking regulation. [online] Annals of Applied Statistics 2017. [cit. 17.11.2017]. Dostupné z: https://arxiv.org/pdf/1608.05498.pdf

Kontaktní údaje

Mgr. Tomáš Jeřábek, MBA
Katedra financí
Fakulta ekonomických studií
Vysoká škola finanční a správní
Estonská 500
101 00 Praha 10
email: jerabek@mail.vsfs.cz

EXEMPT OFFERINGS OF SECURITIES
A CHANCE FOR SMEs TO COVER THEIR FUNDRAISING NEEDS

Erich Auer

Abstract

2017/1129 EU Regulation provides a standardized set of substantive rules applicable across the Union, for the drawing up, approval and distribution of a prospectus to be published when securities are offered to the public or admitted to trading on a regulated market. This work will focus on the Regulation's aim to improve access to the capital markets for small and medium-sized companies (SMEs) and – while honoring improvement in certain aspects – it will identify potential difficulties in the utilization of some provisions. Furthermore, a contrast with the international counterparts will be established. The objective will be to gain awareness of the inevitability of structuring a unified framework that embraces all international and EU provisions to be addressed to small businesses and provide a balance between the necessity for efficient capital formation and the demand to protect investors.

Keywords: *capital formation, capital markets, cost of funds, disclosure, financing, investor protection, prospectus, risk, securities*

1 EU FUNDRAISING INITIATIVE

The political guidelines for the European Commission place an unambiguous emphasis on the Jobs, Growth and Investment Package. The further development and the integration of capital markets is seen to be the keystone to cut the cost of rising capital, notably for small and medium-sized enterprises (SMEs). Hereby, the high dependence on bank funds will be diminished and the attractiveness of an EU-enhanced place to invest. SMEs are the backbone of the EU's economy, creating more than 85% of new jobs in Europe, but are in need of getting rid of bureaucratic over-regulations.

Accordingly, applying the principle of subsidiarity, the Parliament introduced the "New Prospectus Regulation" in June 2017, and thereby created greater legal clarity by using the form of regulation rather than directive.

1.1 Subject and Scope

The scope of this Regulation was to lay down disclosure requirements for the drawing up, approval and distribution of a prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, situated or operating within a Member State. The underlying approach was to simplify and streamline the requirements for the prospectus published when securities are offered on the regulated markets, and to ensure investor protection and market efficiency. The regarding reform of legislation is part of the third pillar of the Investment Plan for Europe, which seeks to improve the business environment, and should both increase the investors' trust and confidence and constitutes an essential step towards the completion of the Capital Markets Union as set out in the Communication of the Commission on the 30th of September 2015, entitled "Action Plan on Building a Capital Markets Union".

1.2 Prospectus

In order to ensure investor protection, issuers of securities offered to the public are obliged to publish a prospectus after the certificate of approval has been granted by the competent authority of the Member State. The underlying principles are to disclose the necessary

information which are “material for making an informed assessment”. On this occasion, the compliance costs and administrative burdens for issuers in accessing capital markets should be diminished. The predetermined format of prospectus and the limitation of the summary--that provides the key information to investors about the nature and risks of the issuer--to a specific number of pages should support this project. The new requirements on disclosure make the prospectus a more relevant tool for potential investors and achieve more convergence between the EU prospectus and other EU disclosure rules.

In consideration of the specificities of different types of securities, issuers, offers and admissions, the Prospectus Regulation establishes principles for varying forms of prospectuses: (a) a standard prospectus, (b) a wholesale prospectus for non-equity securities, (c) a base prospectus, (d) a simplified prospectus for secondary issuances and (e) an EU Growth prospectus. A base prospectus only requires elaboration on an issue-specific summary, in order to reduce administrative burdens and improve readability for investors.

Provided that securities are not admitted to trading on a regulated market, SMEs and certain other issuers will be able to use a standardized EU Growth prospectus in order to gain easier and more cost-efficient access to capital markets financing. Simplified content requirements apply to such a prospectus, including information on the issuer’s organizational structure, the company’s strategy and objectives related to its development and future performance, the company’s management and business operations, financial statements and key performance indicators, as well as information in regard to shareholders.

The disclosure requirements inherent in EU Growth prospectuses focus on information that is material and relevant when investing in the securities offered, and on the need to ensure proportionality between the size of the corporation and its fundraising needs, on the one hand, and the prospectuses’ production costs, on the other hand.

1.3 Exemptions

The New Prospectus Regulation intends to reduce the administrative burden of drawing up a prospectus for all issuers, in particular for SMEs, frequent issuers of securities and secondary issuances.

The Regulation recognizes the encumbrances of producing a prospectus for small scale business. The costs therefore will likely be disproportionate to the envisaged proceeds of the offer. In consequence, this Regulation waives the obligation to elaborate a prospectus for an offer of securities to the public with a total consideration in the EU of less than €1million, which shall be calculated over a period of twelve months. In addition, individual Member State may exempt offers of securities to the public in their national law with a threshold between €1million and €8 million, expressed as the total consideration of the offer in the EU over a period of twelve months, below which the exemption should apply, taking into account the level of domestic investor protection they deem to be appropriate.

Another exemption to publish a prospectus is scheduled for offers of securities addressed exclusively to (a) qualified investors, (b) to fewer than 150 non-qualified investors per Member State, (c) to non-qualified investors that commit to invest at least €100,000, for each separate offer; or (d) to relatives or employees of the issuer.

These exemptions only apply to public offers of securities. If the securities are also to be admitted to trading on a regulated market, a prospectus will still be required unless any of the exemptions applicable to such admissions apply. Furthermore, any resale to the public or public trading through admission to trading on a regulated market will call for a published prospectus.

Exemptions are able to be combined for an offer of securities to the public and/or an admission to trading on a regulated market, where the conditions for those exemptions are fulfilled at the same time. For example, where an offer is addressed concurrently to qualified

investors, to non-qualified investors investing more than €100,000 each, to issuers' employees and, additionally, to fewer than 150 non-qualified investors, that offer will be exempt from the obligation to publish a prospectus.

1.4 Definitions

For this purpose, Small and Medium-sized Enterprises (SMEs) means companies which either: meet at least two of the following three criteria, based on their last annual or consolidated accounts:

- an average number of employees during the financial year of less than 250,
- a total balance sheet not exceeding €43 million, and/or
- an annual net turnover not exceeding €50 million; or

had an average market capitalization of less than €200 million on the basis of end-year quotes for the previous three calendar years.

Qualified Investors means persons or entities required to be authorized or regulated by a Member State or third country to operate in the financial markets. The entities referred to are considered to be professionals, such as:

- Investment firms.
- Credit institutions.
- Insurance companies.
- Collective investment schemes (UCITS) and their management companies.
- Pension funds and their management companies.
- Commodity and commodity derivate dealers.
- Other financial institutions authorized or regulated under Union law or under the national law of a Member State, national governments and their corresponding offices including public bodies that deal with public debt at the national level, central banks and supranational organizations.
- Other institutional investors whose main activity is to invest in financial instruments, including entities dedicated to the securitization of assets or other financing transactions.
- Large undertakings meeting two of the following size requirements on a company basis:
  - balance sheet total: €20 million
  - net turnover: €40 million
  - own funds: €2 million

Advertisement means a communication relating to a specific offer of securities to the public or to an admission to trading on a regulated market, aiming to specifically promote the potential subscription or acquisition of securities.

In addition to other applicable provisions of EU law, in particular relating to consumer protection and unfair commercial practices, the Prospectus Regulation contemplates advertisements, as well as their consistency with the content of the prospectus of utmost importance for the protection of investors, including retail investors.

2 U.S. COMMITMENT TO SECURITIES

Capital is a precarious resource for all companies, and its supply is uncertain. In general, competing companies lack internal sales and thus have to look for external sources to finance their innovative activities. Besides, they rely predominantly on equity to finance their activity because their main assets are hard to value. The choice of financing is a kind of strategic management, and Kochhar (1996) realized that the form of financing influences the competitive position of the company.

Private equity placements achieve long-range benefits to companies issuing private equity. Capital will be raised from registered and other unregistered offering methods. The private equity markets characterize the fastest growing segment of the capital market. They create jobs, drive innovation and accelerate macroeconomic growth. Furthermore, as stated by Folta and Janney (2004), private equity placements secure financial capital and access to commercial and research partners.

2.1 Securities Laws

The U.S. Securities Act of 1933 has imposed rules for offerings and sales of numerous forms of securities: shares, bonds, notes, debentures, certificates of interest, participation in profit-sharing agreements, preorganization certificates, preorganization subscriptions, voting trust certificates and investment contracts.

A corporation is not allowed to offer or sell securities unless a registration with the Security Exchange Commission (SEC) has been undertaken or an exemption from registration is accessible. The securities laws are considered consumer protection laws with the notion, that securities should not be marketed unless the issuing firm informs the buyers in regard to the company, its business, the securities and the investment-risks. The Securities Act of 1933 punishes failure to do so, or false or misleading statements in the offering memorandum.

2.2 Exemptions

SEC's Regulation D is the dominant rule for determining whether an offering of securities is exempt from the registration requirements of Section 5 of the Securities Act. The 1982 revision provided attractive exemptions from registration prerequisites to (small) enterprises. This adoption was necessary to amend the prior rules and to strike a reasonable equilibrium among investor protection and capital formation. Regulation D has modified the concept of investor protection and promotes efficiency, competition and capital formation.

Investors' sophistication and the meaningful disclosure of material information are assumed to be the most effective means for investors' protection. Further, transaction costs are important in that respect, because only low offering costs can enhance capital formation.

Hence, Regulation D provides a stair-step attempt by means of its exemptions: Rule 504, Rule 506(b) and Rule 506(c). The required protection of investors will increase with the quantity of the offering. Correspondingly, Rule 504 grants an exemption from registration in accordance with the 1993 Securities Act for offerings less than five million without any disclosure and/or purchaser sophistication requirement. On the other hand, Rule 506 grants an exemption without any sum limitation. However, the issuer has to disclose any material investment information, and, broadly, sales are limited to "accredited investors". A person qualifies as an "accredited investor" if he/she has either: (a) an individual net worth or joint net worth with a spouse that exceeds $1 million at the time of the purchase, excluding the value (and any related indebtedness) of a primary residence; (b) an individual annual income that exceeded $200,000 in each of the two most recent years or a joint annual income with a spouse exceeding $300,000 for those years, and a reasonable expectation of the same income level in the current year.

Finally, under Rule 144A, securities can be sold to persons other than qualified institutional buyers (QIBs) involving broad solicitation, provided that the securities are offered only to persons whom the seller reasonably believes to be QIBs.

2.3 No Solution for SMEs

It is questionable why, according to the "Ivanov/Bauguess Study", only 1% of the new Regulation D offerings are allotted to Rule 504. Exempt offerings of securities are predominantly accomplished under Rule 506 and restricted to accredited investors. It is

assumed that the legislator did not identify this outcome. A verification seems to be appropriate.
Therefore, conducting a little research has resulted that the States' *blue sky laws* cause the issuer to suspend Rule 504 and organize these minor offerings in compliance with Rule 506. The blue-sky laws impose on issuers an additional burden to register the issuance of securities with each State in which offering and sale of securities should be executed. The U.S. Constitution has bestowed the States and the federal government with the contemporaneous power to regulate offerings and sales of securities. Consequently, the States and the federal government can enact laws impairing private offerings. Unless the federal government explicitly preempts or prohibits the States from enacting laws in a certain area, the States are authorized to enact laws as long as they are at any rate as restrictive as federal law and do not permit behavior that is forbidden by federal law.
With the enactment of the National Securities Market Improvement Act of 1996 (NSMIA) the authority of the States was subordinated to Rule 506 on registrations of securities. State registration requirements have been eliminated for "covered securities", inclusive of stock sold in private placements under Rule 506. However, herein no change has been offered in regard to Rule 504 and therefore, blue sky laws are prevailing for exempt offerings registration under Rule 504. It is assumed that the regulator missed the chance to redress the burden on small issuers. Even with 2017's amendment no remedy has been provided. Hence, 2017's rise of capital limitation up to $5 million will not bring an increase in Rule 504 offerings.
The author argues, and is thus in accordance with Rutheford Campbell's (2011) statement on unintended outcome, that it is also inconsistent with the enunciated preference of Congress for efficiency, competition and capital formation rules. It is not fair to authorize state laws effectively to preclude or considerably restrict enterprises from competitive access to exterior capital. The "Ivanov/Bauguess Study" speaks for itself and the SEC should act consequently. The detrimental effects of the State blue-sky laws on Regulation D have to be repealed.

2.4 Synopsis

Briefly explained, a Rule 504 exemption authorizes a privately held firm to offer up to $5 million in securities in a twelve-month period. No disclosure or purchaser qualification is required. No limitation on the number of purchasers that may acquire securities is imposed. The issuer is not allowed to solicit the offering in public and has to ensure that the securities are not sold publicly for a period of time.
On the other hand, a Rule 506 exemption is accessible both to reporting and non-reporting firms and does not limit the amount on the offers and sales. Closely prescribed narrative and financial investment information have to be disclosed to all unaccredited purchasers, and the amount of this information increases with the magnitude of the offering. Rule 506(b) forbids general solicitation and general advertising, and limits investor participation to accredited investors and up to thirty-five sophisticated, but non-accredited investors.
The new Rule 506(c) arose from the Jumpstart Our Business Startups Act (JOPS Act) of 2012 and eliminated the prohibition against general solicitation and advertising in Rule 506 offerings as long as all purchasers are accredited investors. The difference to Rule 504 is that Rule 506 obliges each non-accredited purchaser to have, either alone or together with his/her representative, "such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment."
To replicate, the philosophy of Regulation D—levying supplementary investor protection requirements as transactions increases—makes "perfect sense as an appropriate balance of the important, competing policies of promotion of capital formation and investor protection." Small offerings can utilize Rule 504 and larger ones can utilize Rule 506. Small companies'

needs for external capital can be satisfied with minimal requirements and low transaction costs.

Placings--a terminus for the selling of shares in a firm directly to a selected group of investors--can be applied, either as a means of flotation or to raise additional capital. Private placings per se are considered to be the cheapest means of raising capital. Furthermore, they allow directors of a firm to impinge the choice of stockholders.

The exact legal effect of conducting an offering in reliance upon Regulation D depends on the particular underlying statutory exemption. Section 4(2) of the 1933 Act directly exempts transactions that come within its terms, and operates independently of the Commission's rules and regulations. Previous to the adoption of Regulation D, Section 4(2)'s "private offering exemption" was the subject of multiple court interpretations. The leading case is *SEC v Ralston Purina*, Co., 346 U.S. 119 (1953) which determined that the hallmark of a private offering was that the offerees and purchasers in the offering were able to protect themselves in their securities transactions. Rice and Ortmeyer (2013) refer to the Supreme Court's stipulation, saying that "such persons had to have access to the same information that would have appeared in a registration statement, and that such persons had to be sophisticated enough to evaluate this information in a meaningful way."

The guiding principle behind all offerings of securities, both public or private, is full disclosure of all material facts concerning the company and the offering. The reason therefore is that an investor can make an informed investment decision. All disclosure must be in writing and made available to each purchaser at a reasonable time prior to the purchase of the securities. All material information should, in accordance to Burk and Lehmann (2004), be drafted in a clear and concise document, referred to as a private placement memorandum (PPM).

Holding Period

Securities purchased in a private placement offering are limited on resale for the reason that the securities have not been registered under the Securities Act and may not be offered, sold or otherwise hypothecated unless and until registered under the Act. Rule 144 requires a one-year holding period for resale of restricted securities. However, after two years, the securities may be traded without limitation.

3 FINDINGS & CONCLUSIONS

3.1 Investor Protection and Capital Formation

The principle of balancing investor protection and capital formation has been upheld by both legal regimes, the European Union as well as the Unites States. A common process of recognition has yielded in the result that high transaction cost will lead to no valuable capital formation.

Although the same premise was assumed in both regimes, however, the approaches were significantly different.

3.1.1 The disclosure of material information are assumed to be the most effective means for protection of investors.

U.S. securities laws regulate any financing activity. Any financial investment in a company with the expectation of profits arising from others' efforts is considered as an "investment contract" and as "security" in the terms of the Securities Act of 1933. In the fundraising process the securities system creates (a) disclosure requirements, and (b) rights of action and consequences for infringement of those disclosure duties.

The Securities Act regulates the offer and sale of securities, and makes the offer and sale unlawful unless the securities are SEC registered or exempt from law. Disclosure shall be

done at the time of offer and sale. Issuers are subject to strict liability for material misstatements or omission of a material fact in the sale or purchase of securities.
Spindler (2009) has stated that exercising U.S. securities laws' exemptions tolerates further effective risk-sharing for insecure ventures than is achievable in the public capital marketplaces. Risk appears by granting immense self-determination to entrepreneurs. The securities laws make it easy for issuers to circumvent the affirmative duty of disclosure. This can be done by restricting offerings to accredited investors, by avoiding public solicitation and keeping the numbers of investors below the mandatory threshold. Even the securities antifraud rules can be bypassed by no or less disclosure to investors, no or less investor control and reduced possibilities of investors to exit. Summarized, deficiencies of disclosure, control and liquidity are accepted by the securities law regime. Issuers of exempt offerings do not carry the burden of full securities disclosure liability as being in force for public markets.
In contrast, the EU Prospectus Regulation establishes a higher obligation to publish a prospectus under the proportionate disclosure regime and provides the rules on disclosure when securities are offered to the public or admitted to trading on a regulated market. The prospectus has to be filed and have received approval with the competent authority unless an exemption is provided.

3.1.2 Principle of dual jurisdictional level exceptions

Raising money from U.S. investors via the sale of legally considered securities has to comply with the federal and state securities laws in every state in which sales of the securities are executed. However, at this dual jurisdictional level specific exceptions are extant. Furthermore, the NSMIA provides a regulatory scheme for federal law to preempt certain aspects of state law in particular circumstances.
General solicitation and advertising is restricted, unless (a) the transactions are registered under a state law that requires public filing and disclosure of documents before sale, or (b) the securities are issued under a state law exemption that permits solicitation and advertising to "accredited investors" only.
Rule 506 effectively stipulates a uniform exemption from all state blue-sky laws. States do not demand registration, levy commission limitations or levy other conditions based on the merit of either the offering or the issuer.
However, in cases of Rule 504 offerings, if a purchaser of an exempt security resells the security to a nonresident, that resale, although not under the control of the issuer, can void the exemption. Furthermore, this purchaser could be charged with violating Section 5 of the Securities Act. In addition, he/she could be charged with violating the antifraud provisions of the Securities Act of 1933 and the Exchange Act of 1934 for any material misrepresentations made in the Rule 504 offering.
It appears that the EU follows the U.S. scheme of dual jurisdictional level exceptions. The EU Prospectus Regulation establishes general exemptions for (a) offers of securities addressed exclusively to a restricted circle of investors who are not qualified investors, like relatives or personal acquaintances of the managers of a company; and (b) for offers of securities to the public with a total consideration in the Union of less than €1 million. The Member States are not allowed to demand a prospectus on offers of securities to the public with a total consideration below that threshold. However, Member States may require other disclosure requirements at the national level to the extent that such requirements do not constitute a disproportionate or unnecessary burden in relation to such offers of securities.
Furthermore, the Regulation grants Member States the option to set out in their national law a threshold between €1 million and €8 million, expressed as the total consideration of the offer in the Union over a period of twelve months, below which the exemption should apply taking

into account the level of domestic investor protection they deem to be appropriate. Below that threshold, Member States may require other disclosure requirements at the national level.
On this account, it can be concluded that a lot of different national laws will lead to a dis-harmonization in executing exempt offerings within the Union. Different studies proved that U.S. state blue-sky laws encumber the raising of capital. In the consciousness of it, steps should be taken to remedy this situation and to regenerate SEC's Regulation D. Another proof of this misconception are the data presented in the "Ivanov/Bauguess Study" that exhibit entrepreneurs' failure in their effort to raise relatively small amounts of capital, executing Rule 504. Rule 504 only accounts for 1% of the amounts reported sold through Regulation D.
For this reason, it will be easy to predict that the exempt regulation on the national level will also fail in the Union. In consequence, "forum shopping" may occur within the different national law provisions.

3.2 Competent Authority

U.S legislation requires issuers of securities to register with the competent authority, the SEC. Even in cases of exemptions, the issuer has to file a notice with the SEC when they sell securities under Regulation D. The SEC has full control and overview, and even can check—based on the transmitted form "D" –if issuers have claimed Rule 506 exemption permitting general solicitation or general advertising.
A different approach has been used in Europe. In each Member State, a single competent administrative authority is designated to approve prospectuses, to exercise control over the compliance of advertising activity, and to assume responsibility for supervising compliance with the Prospectus Regulation. The competent authorities of Member States are entrusted in accordance with national law with supervisory and investigative powers.
Harmonization is provided for the criteria for the scrutiny of the prospectus and the rules applying to the approval processes of competent authorities by streamlining them. The European Securities and Markets Authority (ESMA) plays a key role in fostering supervisory convergence in that field by reviewing the activities of the competent authorities.
Independent regulatory authorities should enforce the rules consistently. However, it remains left to assume whether that market efficiency cannot be sufficiently achieved by Member States but rather, by reason of its effects, be better achieved at Union level.

3.3 Capital Market Union

One of the core objectives of the Capital Markets Union is to facilitate easy access to financing on capital markets for SMEs in the Union in order to be able to grow and raise funds at costs that are not disproportionately high, while ensuring investor confidence in investing in such companies and providing them a level of disclosure and protection tailored to their circumstances.
Therefore, it is appropriate that the Prospectus Regulation has established a specific proportionate EU Growth prospectus regime available to such companies. Once approved, the growth prospectus benefits from the passport regime under this Regulation and is valid for any offer of securities to the public across the Union.

3.4 The New Prospectus Regulation Sets Two Deadlines

By the 21st of July 2018, the ESMA shall provide those regulatory technical standards to specify the provisions concerning advertisements, the dissemination of advertisements, and to establish guidelines and recommendations on the cooperation between the competent authorities of the home Member State and the Member State where the advertisements are disseminated.

By 21st of January 2019, the Commission shall adopt delegated acts to supplement this Regulation by specifying the criteria for the scrutiny of prospectuses, in particular the completeness, comprehensibility and consistency of the information contained therein, and the procedures for the approval of the prospectus.

3.5 Concluding Remarks

The Prospectus Regulation focuses on necessary information which is material and relevant for investors for making an informed assessment. The emphasis on materiality and uniformity in disclosure is envisioned to minimize costs for issuers in accessing European capital markets. However, the market continues to debate about whether the New Prospectus Regulation could have been more ambitious. It remains to be seen how the specific details of the disclosure and content requirements under the delegated acts will address some of the concerns and wishes raised by the market.

Sources

1. Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC, OJ L 168, 30.6.2017, p. 12–82 ("New Prospectus Regulation").
2. BAUGUES, S., GULLAPALLI, IVANOV, Capital Raising in the U.S. Analysis of the Market for Unregistered Securities Offerings, 2009-2014 (October 2015) SEC, Division of Economic and Risk Analysis (The "Ivanov/Bauguess Study"). Accessable via <https://www.sec.gov/files/unregistered-offering10-2015.pdf>.
3. BURK, J.E., LEHMANN, R.P., *Financing Your Small Business*. Naperville, Illinois: Sphinx Publishing, 2004. 81 p. ISBN 1-57248-450-0.
4. CAMPBELL, R.B., *The Wreck of Regulation D. The Unintended (and Bad) Outcomes for the SEC's Crown Jewel Exemptions*. The Business Lawyer, ABA, Vol. 66, No. 4 (August 2011) 923.
5. FOLTA, B., JANNEY, J.L., Strategic Benefits to Firms Issuing Private Equity Placements. *Strategic Management Journal*. Hoboken, New Jersey: John Wiley & Sons, Inc., Vol. 3, Rel 25 (March 2004) 223-242.
6. JUNCKER J.C., 'A New Start for Europe. My Agenda for Jobs, Growth, Fairness and Democratic Change. Political Guidelines for the next European Commission' (*European Commission*, 15 July 2014). Accessable via <http://ec.europa.eu/priorities /sites/beta-political/files/juncker-political-guidelines-speech_en_0.pdf>.
7. KOCHHAR, L.R., Explaining firm capital structure: the role of agency theory vc. Transaction cost economics. 17 *Strategic Management Journal*. Hoboken, New Jersey: John Wiley & Sons, Inc., 1996. (9) 713-728.
8. RICE D.T, ORTMEYER, C.P., *Securities Regulation Forms: Securities Law Series*. Eagan, MN: Thomson Reuters. Vol. 6, Rel. 24 (2013) 1-5.
9. SPINDLER J.C., How Private is Private Equity, and at What Cost? Chicago: 76 *University of Chicago Law Review* (Winter 2009) 1. p 312.

Contact

Erich Auer, LL.M.
LIGS University
A-1010 Vienna
Tel: +43 650 6027200, email: erich.auer@yahoo.com

THE POSSIBILITY OF SME'S TO GAIN EXTERNAL FUNDING IN COMPARISON ACCOUNTING PREPARED IN LINE WITH CZ GAAP OR IFRS

Miluše Korbelová

Abstract

The basis of the world business is created by the small and medium enterprises (SME's). Their importance for economy is monitored by the Czech Republic and by the Europe Union, too. Each external supporter uses first step of information from financial statements. The financial statements have to be fair and true. There are different sights in these statements when they are prepared in line with IFRS or in line with CZ GAAP. External supporters, banks, potential owners take references from these financial statements. Items as ROA, ROE, liquidity, indebtedness or EBIT shows different amount when are used CZ GAAPs or when are used IFRS. The differences and comparison in case of potential owner and in case only lenders for interest show this article.

***Key words**: IFRS, CZ GAAP, ROE,ROA,EBIT*

1. Introduction

The basis of the world business is created by the small and medium sized enterprises (SME's). They are usually represents family business of one or more owners. Their importance for economy is monitored by the Czech Republic as well as the Europe Union and there is a drive to support them. The 95 per cent off all companies in the world are represented by SME's [1]. In EU SME's represents 99.8 per cent off all companies, where the 92.7 per cent represent microunits (within individuals), 6.1 per cent are small entities and 1 per cent coveres the medium entities (L.Müllerová, M.Paseková, E. Hýblová, 2010). An important portion on the employment rate belongs to the SME's, in the EU it is 66,9 per cent, in the Czech Republic it is 69.6 per cent of the total number of empoyed[2].

SME is entity with typical signs. They are usually family enterprises, their employees are mostly family members and friends. The management is informal, via the owner's and director's are the same person. The SME's are financed especialy from own sources. The ongoing globalisation, cross-boarding market, cooperation and competition among companies and states required the essential steps based in facilitation of their comparison of accounting statements, understandability and strengthening of the credibility of the accounting statenents (Nobes Ch., Parker R., 2009). The harmonisation process started slowly (Žárová M., 2004). The EU regulation 1606/2002 ask companies whose securities are traden on the regulated market to keep accounting and prepare financial statements acording to IAS/IFRS[3]. In 2009 the International Accounting Standards Board published the IFRS for SME's with recommendation to incorporate it into national accounting legislation.

The duty of the state is to provide the public services and this is the main reson for tax collection. The source for income tax and tax base is accountancy. States regulate accountancy with nationals and historical purpouses (Ricardo D., 1821). Althought the

[1] http://www.ifrs.org/IFRS-for-SMEs/Pages/IFRS-for-SMEs.aspx)

[2] Data overview SBA (Small and Business Act) initiative, 2015, Czech Republic

[3] Regulation ES n. 1606/2002

accountancy's main aim is provide fair and true view for each users, the taxation is not interested in it. The main aim for taxation is bring enouht money into state budget. There is relationship between accounting and taxation, accounting gives information about expenses and incomes for taxation (James S., 2009). These are resons why states regulate accounting by the national accounting standadrs, which are kind to taxes demands (Procházka D.,2014). Profesionals claim for enable to companies, to SME¨s prepared accountig and financial statements in line with IFRS. The comparability, clarity and reliability of finacial indicators in SME's accounting among the EU is still up-to-date (Kubíčková D., 2010, Albu N. – Albu C., 2010, Bohušová H. 2008, Quali A. –Paolini P., 2012).

The demandig for SME's are not only in accounting and taxes area. If SME's want to take part in international market, they have to have knowlage in lot of feelds as is manageing, rules, norms, forgeign institution and government, business knowledge, knowledge surces for the internationalizing SME's and so on (Suárez-Ortega S., Knight G., García-Gabrera A.,2016). There is no much possibility to develop business for SME's in EU, but if they overcome all obstracles they will need external financial sources to be able to face to multinationals. It is necessary, in such cases, to provide a potential investors true, accurate and comparable information on each financial position of assets and liabilites. The financial statements have to provide data in a structure which can be recognised by potential investors.

Some countries do not allow SME's to prepare accounting and financial statements in accordance with IFRS, include the Czech Republic. In the Czech republic are the rules for accounting and preparation of financial statements strictly done by the Accounting act and Czech accounting standards (CZ GAAP).

1.1. The Czech Republic

Accounting regulation in the Czech Republic is closely connected with tax obligations and the accounting units are obliged to use the analytical evidence "classification for tax purpouses" (see CZ GAAP, par. 2.2.1.f)[4]. There are a strictly said which the chart of accounts you have to use, structure of the financial statements and how you should charge accounting cases in the CZ GAAP. The Financial statements and accounting prepared according to national rules can not be used by foreign users due to missunderstanding. As is said in The Basiss for Conclusion accompanies the IFRS for SMEs , these small and medium enterprises needs to prepare fair and true statements for their external potentional investors, banks, rating agency, business partners, acquisition and next users.

The closing financional statements assembled in line with IFRS provede different information than the closing financial statements assembled in line with CZ GAAP. The finacial statements are basis for assesment of the financial position of the company and therefore the conclusions made upon the different rules can significantly vary (Kubíčková, D., 2010, Jindřichovská, I., 2013).

The emphasis on a true and fair view of financial statements and their comprehensibility to users is primarily required by the professional public. Over time, accounting rules have been separated from tax rules and the CZ GAAP has gradually been brought into line with IFRS (Mejzlík,L., Roe, J., Vitek, L., 2014). However, this process is very slow, partial, and inconclusive.

At present, there is a new concept of leasing reporting, particularly operating leases (IFRS16), at international level. Enabling accounting in line with and compiling IFRS statements would greatly improve the position of SMEs in obtaining external financial resources.

This problem is mentioned in Bohušová H. and Svoboda P. work, who focus on operating leasing, particular for air transport companies, small and medium-sized enterprises. Their study compare two ways of assemble of statements , in line in IFRS and in line in CZ GAAP

[4] Implementing orger n. 500/2002 Coce, Accounting law, The Czech Accounting Standards n. 001-024

and compare them. Authors show the benefit of a new standard for operational leasing, in particular for SMEs, the presentation of their reports to investors. The result of their study shows how diferent are results of financial analysis calculated on the base of the different accounting rules (Bohusová,H., Svoboda, P., 2016).

2. The Aim and Methodology

The aim of this thesis is to show a difference of financial indicators in a typical small enterprise when the accounting is kept and the statements are compiled on different accounting rules. To show defferences on a particular sample as large as the difference in compilation of financial statements in accordance with IFRS and in accordance with CZ GAAP. The main reason why we talk about it is possibility to get external finance resources. Different financial positions pose different financial indicators for the company's assessment from the point of view of an external potential investor. These diferent financial positions are taken by financial institutions to survey if they provide credit or not. The potential buyer survey them to buy it or not and value of all company.

The financial statements of a chosen small enterprise prepared in accordance with Czech accounting policies are adjusted and brought in line with IFRSs. The adjustment is limited to the data that could be obtained from the public register and from the company's published data. The task is to process from these data the indicators of financial analysis, ROE, ROA, EBIT, liquidity and indebtedness, and compare them with each other.

At the first, a small business with typical features was selected. Typical features for SMEs are personal ownership of the enterprise, the manager and manager of the enterprise is the owner, the employees are their own family, the enterprise is financed mainly from own resources and the reporting of the enterprise is managed mainly by the Czech accounting regulations and the requirements of the state in the area of taxes.

The financial statements were taken from the Commercial Register. Further information on the company was taken from the company's own presentation on the website.

The adjustments that have been made relate to the translation of receivables and payables to the present value, the elimination of foreign exchange differences, the capitalization of operating leases and the calculation of the present value of income tax paid in 2012 from proceeds that have not been recovered and which are subsequently reversed through tax deductible adjustments.

3. Data and Results

KONSTRUKTPOL s.r.o., was chosen as typical small enterpises. The one has only one owner. The subject of business is locksmithing, production of metal structures, special pallets and containers for automobile, engineering and construction industry. There are approximately 80 workers employed. The company is mainly focused on exports.

The company's data are taken from the public registers, the Commercial Register and the data published by the company itself on the webside. The financial statements and notes cover five years from 2012 to 2016.

The Company has receivables from 2012 that have not been paid, yet. The total amount of receivables is CZK 21,665 thousand. The income tax CZK 4,116 thousand was paid from incomes of these receivables. Tax deductable adjustments in full amount were made to the receivables The tax wich was paid in 2012 was gradually refunded as the tax deductable adjustments were applyed. The present value of paid income tax and refundable taxe is not the same.

The data were given into process to can be compared. It was done in several steps. At first was taken data from statements prepared in line with CZ GAAP and does financial analysis from these. Results are shown in table 1.

At the second were chosen items transformed to be in line with IFRS. After that was calculated present value of bank loan as long-term liabilities. Next was excloude change rate, which has influence on expendictures and gains. There is said, in the notes, that hall, building and machine are rented by owner. We can see hall and building on the webside of company. There are big and large hall for produce metal structures and building when offices are. Approximate value of these buildings is 50 000 thousand CZK, by my opinion. This hire has typical sign of operating leasing and in line with new IFRS16 it shoud be shoun as assets. These buildings were input into assets and calculate present value in each year. To be balanace sheet equal, it needs correct liabilities. There are two possibilies – put it into equity (item is shown with "*") or show it as long-term liabilities (item is shown with "*", too). Bouth options are shown in table 2. At the last were taken receivables which are not paid off, income tax which was paid in 2012 and adjustments from which income tax schoud be paid back. The present value of these was calculated. This present value was compared with adjustmends calculated in line with CZ GAAP. Last step was correction of economic result by this differences in each year. The result of this work is shown in table 2.
Way of calculatin present value of income tax comes from not paid receivables and repaiment tax comes from adjustment needs explanation. Adjustments of receivables were apply each year as deductable items. The present value of the refunded income tax, which comes from deductables items, is considered to be 2 per cent of inflation and 4 per cent of the interest rate. Tax rate is in all these years the same – 19 per cent. The each year differences on the income tax in present value deducted economic results which were showen in statements prepared in line with CZ GAAP. The work on this calculation is shown in table 3.

Table 1: Data comes from CZ GAAP

Item/year	2016	2015	2014	2013	2012
EBIT(thousand CZK)	283	9 274	974	14 326	2 039
ROE	0.008	0.274	0.037	0.563	0.147
ROA	0.004	0.145	0.180	0.293	0.032
Indebtness	0.392	0.453	0.467	0.391	0.786
Liquidity	2.846	2.539	2.002	2.359	1.192

Source: own calculation

Table 2: Data comes from transformation ito IFRS

Item/year	2016	2015	2014	2013	2012
EBIT (thousand CZK)	208	10 655	385	14 440	3 190
ROE	0.003	0.303	0.009	0,569	0.231
ROE*	0.001	0.125	0.003	0,193	0.500
ROA	0.001	0.093	0.002	0,153	0.028
Liquidity	2.846	2.539	1.739	2,169	1.193
Indebtness	0.226	0.264	0.267	0,203	0.444
Indebtness *	0.667	0.693	0.777	0,722	0.879
Equity*/liabilities	3.325	2.812	2.915	3,883	1.255
Equity/liabilites *	0.468	0.453	0.347	0,371	0.137

Source: own calculation, the symbol "*" means that the value of the operative leasing of buildings is included in the item

Table 3: Calculation present value of income tax, adjustments, repaid tax, comparison CZ GAAP and IFRS , numbers are in thousand CZK

Item/year	2016	2015	2014	2013	2012
CZ GAAP (=receivables value is 21 665)					
Icome tax paid					-4 116
Adjustments	5 717	9 340	4 019	3 260	0
Refunded tax	1 055	1 721	740	600	+4 116
IFRS (= receivables value is 21 665)					
Icome tax paid					-4 116
Present value of receavables	10 443	12 544	15 036	18 047	21 665
Refunded tax	836	1 445	658	566	+3 505
differences	219	276	82	34	611

As we can see from the table 1 and table 2, it is an enterprise that has a high item of liquidity. Equity shows steady growth. The company does not losses. Profit before tax and interest is high enough to cover these costs. In 2014, the company received a bank loan that is not very significant in relation to assets (about 10 million CZK).However, we compare the data of Table 1 with the revised data in Table 2, we see that, in particular, indebtness (excluding the liability of the embedded building) shows significantly better values in the case of a transformation into IFRSs. Liquidity also shows slightly better results in the case of a transformation into IFRSs, mainly due to the conversion of outstanding receivables.

The operating leasing of buildings is interesting. The disclosure of buildings in assets significantly changes the view of the external user and the potential investor on the enterprise as a whole. In addition to the ability to report earnings, the value of the reported assets is also measured in the enterprise's valuation (Valach, J., a kol. 2010). If this company at the time of applying for a bank loan had rented buildings in the assets, it could request a higher loan amount to finance its needs. Interesting would be the owner's decision whether to place the building s into equity or to sell them to the company. In the case to input rented buildings into equity, the debt is significantly more favorable than in the case of a sale. According to the authors of investment decisions, a certain proportion of foreign capital is appropriate, even cheaper than investing in equity (Valach, J., a kol. 2010).

Interestingly, there is a look at the payback of the income tax paid for non-recoverable receivables. By applying tax deductible allowances to receivables, the state is dealing with the poor enforcement of the law and, as a result, poor payment morale among entrepreneurs. The tax paid on the potential earnings of these receivables is gradually reversed as the allowances for receivables are applied. Interestingly, the amount of return on paid income tax over time. In our case, the real value of the refund is one million CZK less.

4. Discusion and Conclusions

The aim of the article was to show the specific example of a typical small business doing business in the Czech Republic with the disadvantage of keeping accounts and reporting in accordance with CZ GAAP. The SME support is one of the main goals not only of the Czech Republic but of the whole EU. Many efforts are being made to support SMEs. Both the Czech Republic and the EU spend considerable financial means to support small and medium-sized enterprises. Therefore, it does not appear reasonable not to allow keep accounting and prepare financial statements in accordance with IFRS, if it is appropriate for the SME. As is discussed above, the issue is addressed by a number of scientific articles that point to the appropriateness of using IFRS for SMEs in obtaining foreign capital, and show differences in

reported data when processed according to national legislation (Bohušová, H. Svoboda, P. , 2016, Kubíčková, D.2010, Korbelová, M., 2016, Müllerová, L., Paseková, M., Hýblová, E., 2010). The article does not aim to break the existing legislation, but to support existing authors in their efforts to enable more accurate and honest reporting of assets, liabilities, equity and the financial situation of small and medium-sized enterprises. Enable comparisons between countries and support reduction of administrative burden. It is well known that the Ministry of Finance CZ has prepared a new Act on Accounting and a new Income Tax Act. This opens up new possibilities to argue and appeal to a more honest reporting of financial positions and comparability with other businesses across countries.

This article is supported by IGA, Mendel University in Brno.

References

1. ALBU, C., ALBU, N., FEKETE PALI-PISTA, S., GUZDORIEAN-VLADU, D., *IFRS for SME's in Europe – Lesson for a Possible Implementation in Romania*, 5th WSEAS International Conference on Economy and Management Transformation, ISBN 978-960-474-241-7, 659-663.
2. BOHUŠOVÁ, H., 2008. *Accounting Harmonisation and Aplication IAS/IFRS*: Selected IAS/IFRS within Czech Enterprise Conditions, Prague, ASPI, ISBN 798-80-7357-366-9.
3. BOHUŠOVÁ, H., SVOBODA, P., 2016. *Possible Amendment fo IFRS for SMEs due to New Approach to Operating Lease Reporting in Full IFRS: Effect on Financial Analysis Ratio in Air Cargo Trnsportation in the Czech Republic,* Review of Integrative Business and Economics Research, 5 (1): 139-151.
4. JAMES, S., 2009, *The Relationship Between Accounting and Taxation, University of Exeter, ISSN 1473-2912.*
5. JINDŘICHOVSKÁ, I., 2013. *Financial Management in SME's*, European Research Studies Journal, 16 (4): 79-96, ISSN 1108-2976.
6. KORBELOVÁ, M., 2016, *How International Financial Reporting Standards (IFRS) Improve the Financing of SME's in the Czech Republic,* International Journal of Ecomonics and Business Administration, 4 (3): 30-40.
7. KUBÍČKOVÁ, D., 2010. *Reporting According to the IAS/IFRS a Bankrupt Models*. Ostrava, 5th International Conference Managenent and Models of Finacial Risk, VŠB-TU.
8. MEJZLÍK, L., ROE, J., VÍTEK, L., 2014. *Adjustments to the Accounting Profit in Determination the Income Tax Base: Evolution in the Czech Republic*, European Financial and Accounting Journal, 9 (99): 4-24.
9. MÜLLEROVÁ, L., PASEKOVÁ, M., HÝBLOVÁ,E., 2010. *The Analysis of the Accounting and Reporting Development of the Small and Medium Sized Enterprises.* The Czech Financial and Accounting Journal, 5: 20-36.
10. NOBES, Ch., PARKER, R., 2008. *Comparative International Accounting.* Person Education Limited, ISBN: 978-0-273-71476-7.
11. PROCHÁZKA, D., 2014. *The IFRS as Tax Base:Potentional Impact on a Small Open Economy*, European Financial and Accounting Journal, 9 (4): 59-75.
12. RICARDO, D.,1821. *On the Principles of Political Economy and Taxation*. Library of Economics and Liberty, www.econlib.org/library/Ricardo/ricP4.html
13. SUÁREZ-ORTEGA, S.,GARCÍA-GABRERA, A., KNIGHT, G.,2016. *Knowledge asquisition for SME's first developing economies:Evidence from Senegal,* European Journal of Management and Business Economics, 25: 22-35.

14. VALACH,J., a kol., 2010. *Investment Decision and Longterm Funding*,, Ekopress, Praha, ISBN 978-80-86929-71-2.
15. ŽÁROVÁ, M., 2004. *Regulation of the European Accounting out of the International Harmonisation Point of View*. VŠE: Acta Oeconomica Pragensi

Kontaktní údaje
Ing. Miluše Korbelová
Faculty of Business and Economy
Mendel University in Brno
603 00 Brno
Tel.: +420602282357
Email: lucaa@volny.cz

WPŁYW KOSZTÓW PRACY NA WYNIK FINANSOWY PRZEDSIEBIORSTWA

THE IMPACT OF LABOR COSTS ON THE COMPANY FINANCIAL RESULT

Patrycja Kokot-Stępień

Strzeszczenie

Jedną z najważniejszych pozycji kosztów działaności przedsiębiorstwa mających istotny wpływ na poziom wyniku finansowego są koszty pracy. Związane są one z pozyskaniem, utrzymaniem, wykorzystaniem i doskonoaleniem zasobów ludzkich. Celem artykułu jest przybliżenie istoty kosztów pracy oraz analiza ich wpływu na koszty i przychody przedsiębiorstwa X w latach 2012-2016.

Słowa kluczowe: *przychody, koszty, koszty pracy*

Abstract

One of the most important positions of the company's operations cost that have a significant impact on the level of the financial result are labor costs. They are associated with the acquisition, maintenance, use and improvement of human resources. The aim of the paper is to present the essence of labor costs and to analyze their impact on the costs and revenues of enterprise X in 2012-2016.

Key words: *revenues, costs, labor costs*

WPROWADZENIE

Koszty stanowią główny miernik charakteryzujący gospodarność przedsiębiorstwa oraz są ważnym kryterium podejmowania wszelkich decyzji zarządczych. Maksymalizacja zysku będąca, obok wzrostu wartosci jednostki gospodarczej, podstawowym celem funkcjonowania przedsiebiorstwa może następować w nastepstwie oddziaływania na wartosci strumieniowe, niemniej jednak bariera popytu oraz nieustannie rosnąca konkurencja sprawiają, iż minimalizacja kosztów staje się zasadniczym źródłem poprawy efektywności podmiotu gospodarczego. Jedną z najważniejszych pozycji kosztów operacyjnych jednostki gospodarczej istotnie wpływającą na efektywność gospodarowania przedsiębiorstwa odzwierciedloną
w poziomie wyniku finansowego są koszty pracy

1. SPECYFIKA KOSZTÓW PRACY

Koszty pracy, określane również jako koszty zatrudnienia, koszty personalne, koszty osobowe, koszty siły roboczej, koszty czynnika ludzkiego, czy koszty pracy żywej to wartość pracy wykonanej przez zatrudnionych w danej jednostce gospodarczej pracowników celem wytworzenia produktów czy usług stanowiących podstawę funkcjonowania przedsiębiorstwa. Wielowymiarowość i złożoność rozważanej kategorii powoduje, że koszty pracy można rozpatrywać w wąskim i szerokim ujęciu. W pierwszym przypadku koszty pracy obejmują wynagrodzenia wraz z narzutami. Natomiast w drugim dotyczą nakładów na poziomie makroekonomicznym ponoszonym na zatrudnianie siły roboczej w kraju, a wykorzystywanej w skali mikroekonomicznej w przedsiębiorstwach [1]. Ogół nakładów ponoszonych w

związku z przygotowaniem, rozwojem oraz wykorzystaniem potencjału pracy w gospodarce danego kraju określane jest mianem społecznych kosztów pracy.
Z punktu widzenia jednostki gospodarczej zatrudniającej siłę roboczą koszty pracy identyfikowane są z kosztami ponoszonymi przez nią w związku z pozyskaniem, a następnie utrzymaniem, wykorzystaniem, a także doskonaleniem zasobów pracy. Oprócz wynagrodzeń obejmujących szereg pozycji "ukrytych" w tradycyjnym układzie rodzajowym kosztów na innych kontach należą do nich koszty narzutów na wynagrodzenia, wśród których można wskazać składki na ubezpieczenie społeczne, koszty obowiązkowych i dobrowolnych świadczeń na rzecz pracowników, koszty szkoleń, delegacji, badań lekarskich oraz inne dotyczące rekrutacji, dalszego zatrudnienia, czy zwalniania pracowników [2]. Koszty pracy obejmują zarówno elementy płacowe, jak i pozapłacowe, których klasyfikacja została przedstawiona w tabeli 1.

Tabela 1. Płacowe i pozapłacowe składniki kosztów pracy

SKŁADNIKI PŁACOWE	ZA CZAS PRZEPRACOWANY	Wynagrodzenie zasadnicze	obowiązkowe
		Premie i nagrody	fakultatywne
		Dodatki stażowe	fakultatywne
		Za godziny nadliczbowe	obowiązkowe
		Za godziny nocne	obowiązkowe
	ZA CZAS NIEPRZEPRACOWANY	Wynagrodzenie chorobowe	obowiązkowe
		Za czas urlopów	obowiązkowe
		Odprawy	obowiązkowe
		Odszkodowania	obowiązkowe
ŚWIADCZENIA POZAPŁACOWE	NARZUTY NA WYNAGRODZENIA	Składki na ubezpieczenie społeczne	obowiązkowe
		Składki na FP, FGŚP, FEP	obowiązkowe
	INNE ŚWIADCZENIA DLA PRACOWNIKÓW	Koszty BHP	obowiązkowe
		Koszty badań lekarskich	obowiązkowe
		Wydatki na delegacje służbowe	obowiązkowe
		Odpisy na ZFŚS	fakultatywne
		Wydatki na rekrutację, kształcenie, doskonalenia i przekwalifikowanie kadr	fakultatywne
		Koszty administracji personalnej	fakultatywne
		Koszty dowozu i zakwaterowania pracowników	fakultatywne
		Koszty ubezpieczenia grupowego na życie pracowników	fakultatywne
		Koszty dodatkowych świadczeń niefinansowych dla pracowników (np. samochód służbowy, telefon służbowy, itp.)	fakultatywne

Źródło: [1]

Optymalizacja kosztów pracy jest istotną kwestią dla każdej jednostki gospodarczej. Ich analiza ma duże znaczenie dla oceny sytuacji majątkowo-finansowej przedsiębiorstwa, a identyfikacja najważniejszych czynników oddziałujacych na wartość i strukturę kosztów pracy pozwala na okreslenie kierunku i siły ich wpływu na wynik fianasowy danego podmiotu. Rozpoznanie i ocena kosztów związanych z zatrudnianiem pracowników umożliwia jak najlepsze kształtowanie poziomu ich elemntów składowych, a to z kolei

pozwala na podejmowanie właściwych decyzji w zakresie gospodarowania czynnikiem ludzkim.

2. ANALIZA KOSZTÓW ZATRUDNIENIA W WYBRANYM PRZEDSIĘBIORSTWIE

Przedsiębiorstwo X jest spółką jawną, która od ponad 25 lat zajmuje się produkcją ozdób choinkowych z tworzyw sztucznych. Jednostka oferuje swoje wyroby klientom zarówno hurtowym, jak i detalicznym, a bezpośrednimi odbiorcami są kontrahenci krajowi i zagraniczni z krajów Unii Europejskiej oraz spoza jej obszaru. Przedsiębiorstwo dąży do zaspokojenia potrzeb każdego klienta, dając przy tym możliwość wykonania wyrobów na specjalne zamówienie. W latach 2013-2015 przedsiębiorstwo dzięki pozyskaniu środków unijnych z Górnośląskiej Agencji Rozwoju Regionalnego oraz Polskiej Agencji Rozwoju Przedsiębiorczości zrealizowało szereg przedsięwzięć inwestycyjnych pozwalających na unowocześnienie zaplecza produkcyjnego. Korzystając z dofinansowania w wysokości 50% kosztów kwalifikowanych spółka zakupiła nowe maszyny umożliwiające przyspieszenie procesu produkcyjnego, oraz zmniejszanie zużycia energii.

2.1 Zatrudnienie w badanym przedsiębiorstwie

Na początku istnienia spółki, w roku 1989, zatrudnienie znalazło 9 osób, a na koniec roku 2016 przedsiębiorstwo zatrudniało 38 osób w ramach umowy o pracę na pełny oraz niepełny etat. Wśród zatrudnionych znajdują się zarówno kobiety (29), jak i mężczyźni (9) pracujący w trzech działach: biurowo-handlowym (9 osób) produkcyjnym (13 osób) i montażu (16 osób). W okresie jesienno-zimowym przedsiębiorstwo angażuje dodatkowych ludzi do pracy sezonowej, przy czym należy podkreślić, że zgodnie ze stosowana w spółce polityką zatrudnienia jednostka co roku przedłuża współpracę z wybranymi osobami. W okresie od sierpnia do listopada pracownicy sezonowi pracują w oparciu o umowę zlecenie podpisywaną zazwyczaj na okres jednego miesiąca, jednakże rosnąca liczba zamówień i zwiększone zapotrzebowanie na oferowane wyroby skutkują przedłużeniem umów na kolejne miesiące. W latach 2012-2016 przedsiębiorstwo zawarło 28 umów zlecenie, z czego najwięcej bo aż 13 w roku 2016. W analizowany okresie spośród pracowników sezonowych zatrudniono na podstawie umowy o pracę 11 osób, w tym 5 w roku ostatnim.

2.2 Zasady wynagradzania pracowników w badanym przedsiębiorstwie

W badanym podmiocie gospodarczym na podstawie obowiązujących przepisów prawa pracy został opracowany regulamin wynagradzania uzgodniony i zaakceptowany przez przedstawiciela pracowników. Zgodnie z nim wynagrodzenie za pracę wypłacane jest pracownikom na wskazane przez nich konto bankowe ostatniego dnia danego miesiąca, przy czym jeśli wypada on w sobotę lub niedzielę wynagrodzenie musi być wypłacone w ostatni dzień roboczy przed dniem wolnym od pracy. W przedsiębiorstwie obowiązuje czasowo-premiowy system wynagradzania polegający na ustaleniu dla poszczególnych grup zaszeregowania pracowników stawek wynagrodzenia zasadniczego i uzależnionej od efektów pracy premii uznaniowej[1].

Wynagrodzenie zasadnicze w ramach ustalonych stawek ustala pracodawca w umowie o pracą, w drodze negocjacji z danym pracownikiem[2]. Poza wynagrodzeniem zasadniczym pracownikowi przysługują dodatkowe składniki wynagrodzenia i pozostałe świadczenia związane z pracą, do których w szczególności należą:

[1] Podstawą zaszeregowania pracowników jest tabela zaszeregowania stanowisk pracy, obejmująca stanowisk występujące w spółce, stanowiąca załącznik nr 1 do regulaminu wynagradzania.

[2] W przypadku zatrudnienia pracownika w niepełnym wymiarze czasu pracy, wynagrodzenie zasadnicze obliczane jest proporcjonalnie do czasu pracy przewidzianego w umowie o pracę

- wynagradzanie za prace w godzinach nadliczbowych,
- wynagradzanie za prace w dniu dodatkowo wolnym od pracy,
- wynagrodzenie za prace w porze nocnej,
- wynagrodzenie za czas niezawinionego przez pracownika przestoju.

Z kolei premię uznaniową, której podstawę naliczenia stanowi określone w umowie o pracę wynagrodzenie zasadnicze pracownik, pracodawca przyznaje po uwzględnieniu swoich możliwości finansowych, biorąc pod uwagę między innym sumienność i staranność wykonywanej pracy, przestrzeganie regulaminu pracy i wynikających z niego obowiązków oraz stosunek zarówno do klientów, jak i współpracowników. Ponadto pracownikowi szczególnie wyróżniającemu się w pracy może być przyznana, na wniosek jego bezpośredniego przełożonego, nagroda na poziomie do 50% określonego w umowie o pracę wynagrodzenia zasadniczego. Pracownikom przysługują również inne świadczenia pieniężne związane z pracą, wśród których można wskazać: świadczenia należne w okresie czasowej niezdolności do pracy czy należne z tytułu wypadków przy pracy i chorób zawodowych, nagrody jubileuszowe, odprawy rentowe, emerytalne, bądź pośmiertne, ekwiwalenty za używanie podczas pracy własnej odzieży i obuwia, a także zwrot kosztów delegacji służbowych.

Spółka na okres sezonu zimowego zatrudnia w ramach czasowej formy wynagradzania pracowników na umowę zlecenie, bez opłaconych dobrowolnych składek na ubezpieczenie chorobowe, a wartość ubezpieczenia wypadkowego wynosi 1,8%.

Wynagrodzenia pracowników są naliczane przy wykorzystaniu programu komputerowego Firmy Insert „Gratyfikant" zgodnie z algorytmem zaprezentowanym w tabeli 2.

TabelA 2. Algorytm wyliczeń wynagrodzeń pracowników

A	**WYNAGRODZENIE BRUTTO**	
B	+ Premia uznaniowa (2-10% wynagrodzenia brutto)	A * B
C	= **PRZYCHÓD – podstawa wymiaru składek na ubezpieczenie społeczne**	
D	- SKŁADKI na UBEZPIECZENIE SPOŁECZNE finansowane przez PRACOWNIKA (13,71%), w tym: EMERYTALNA 9,76% RENTOWA 1,5% CHOROBOWA 2,45%	C * 13,71%
E	= **podstawa wymiaru składki na ubezpieczenie zdrowotne**	
F	- KOSZTY UZYSKANIA PRZYCHODU (111,25 zł)	
G	= **podstawa opodatkowania**	
H	* Stawka podatku	
I	- kwota zmniejszająca zaliczkę na podatek dochodowy (46,33 zł)	
J	= **zaliczka na podatek dochodowy**	
K	Składka na ubezpieczenie zdrowotne	E * 9%
L	Składka na ubezpieczenie zdrowotne odliczana od podatku	E * 7,75%
M	**Pobrana zaliczka na podatek dochodowy**	J – L
N	**WYNAGRODZENIE NETTO PRACOWNIKA**	**C – D – K - M**

Źródło: Opracowanie własne na podstawie danych spółki

Od wynagrodzenia pracownika brutto naliczane są dodatkowo składki na ubezpieczenia społeczne, Fundusz Pracy oraz Fundusz Gwarantowanych Świadczeń Pracowniczych płacone przez pracodawcę. Algorytm ich obliczeń zaprezentowano w tabel 3.

Tabela 3. Algorytm wyliczeń składek na ubezpieczenie społeczne finansowanych przez pracodawcę

A	**WYNAGRODZENIE BRUTTO**	
B	+ Premia uznaniowa (2-10% wynagrodzenia brutto)	A * B
C	= **PRZYCHÓD – podstawa wymiaru składek na ubezpieczenie społeczne**	
D	- SKŁADKI na UBEZPIECZENIE SPOŁECZNE finansowane przez PRACODAWCĘ (18,06%), w tym: EMERYTALNA 9,76% RENTOWA 6,5% WYPADKOWE 1,8%	C * 18,06%
E	Fundusz Pracy	C * 2,45%
F	Fundusz Gwarantowanych Świadczeń Pracowniczych	C * 0,1%

Źródło: Opracowanie własne na podstawie danych spółki

Należy również dodać, że pracodawca, u którego występuje praca w szczególnych warunkach lub o szczególnym charakterze jest zobowiązany naliczać i opłacać składkę na Fundusz Emerytur Pomostowych, która wynosi 1,5% podstawy wymiaru składek na ubezpieczanie społeczne. Jednak dzięki stosowanej w spółce technologii produkcji pracodawca nie nalicza i nie odprowadza tej składki.

2.3 Analiza kosztów pracy w badanym przedsiębiorstwie

Na koszty związane z zatrudnianiem pracowników oprócz wynagrodzeń i składek na ubezpieczenie społeczne składają się także wynagrodzenia urlopowe i chrobowe, koszty szkoleń bhp i ochrony przeciwpożarowej, koszty badań lekarskich, koszty zakupu odzieży roboczej oraz koszty zakupu środków ochrony indywidualnej. Poziom i dynamikę kosztów zatrudnienia w latach 2012-2016 zestawiono w tabeli 4.

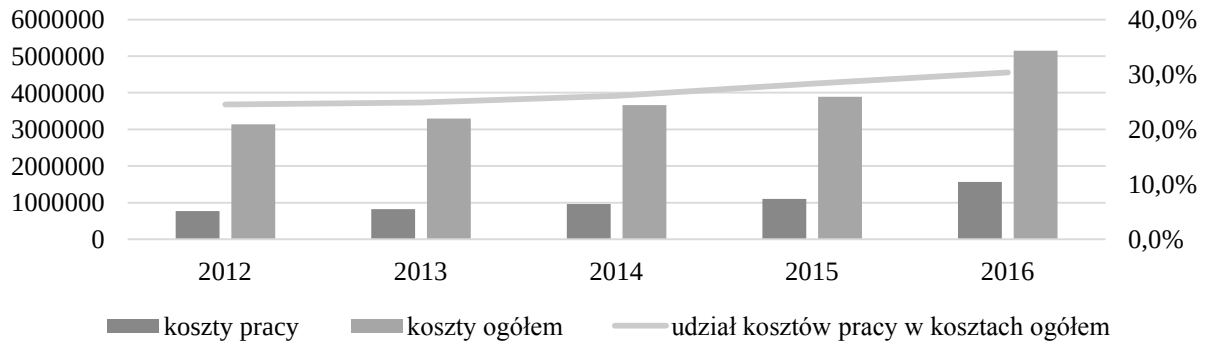
Tabela 4. Poziom i dynamika kosztów pracy w badanym przedsiebiorstwie w latach 2012-2016

KOSZTY PRACY	2012	2013	2014	2015	2016
wartość [zł]	7690204	8202060	957516	1103248	1564426
dynamika [%]	Rok poprzedni = 100%	107%	117%	115%	142%
	Rok 2012 = 100%	107%	125%	143%	203%

Źródło: Opracowanie własne na podstawie danych spółki

Na podstawie danych ujętych w tabeli 4 widoczny jest systemtyczny wzrost kosztów zatrudnienia. W roku 2012 wynosiły one niespełna 780 tys. zł, po czym na skutek corocznego wzrostu w roku 2016 ukształtowały sie na poziomie ponad 1 564 tys zł. Największy wzrost badanej miary nastąpił w ostatnim roku objętym analizą, w którym koszty zatudnienia w stosunku do roku poprzedniego zwiększyły sie o 42 %, natomiast zestawiając dwa skrajne lata badawcze wzrosły one dwukrotnie. Wzrost kosztów zatrudnienia w kolejnych latach związany był przede wszystkim ze wzrostem liczby pracowników, bowiem na przestrzeni analizowanych lata zatrudnienie zwiekszyło się o 12 osób. Największy wzrost liczby pracowników odnotowano w roku 2016 i był on następstwem wprowadzonia na rynek nowego produktu.

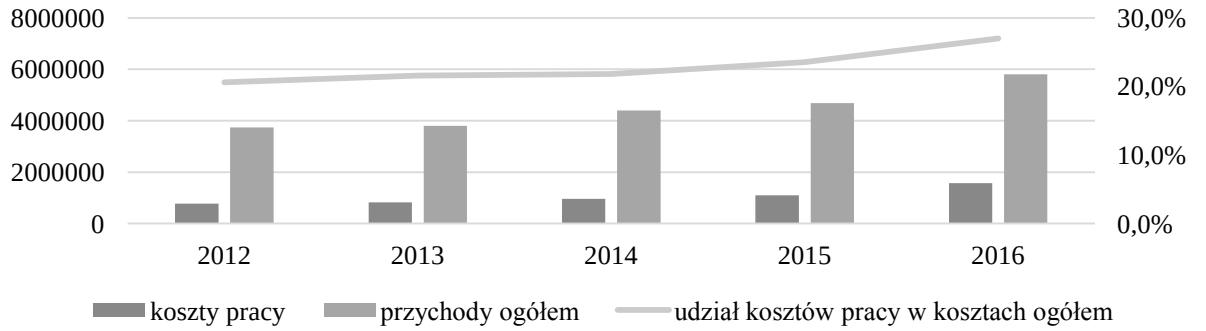
Na wykresie 1 przedstawiono udział kosztów pracy w kosztach ogółem ponoszonych przez przedsiebiorstwo w latach objetych badaniem.



Wykres 1. Udział kosztów pracy w łącznych kosztach badanego przedsiębiorstwa w latach 2012-2016

Źródło: Opracowanie własne na podstawie danych spółki

Z analizy danych zaprezntowanych na wykresie 1 wynika, że udział kosztów zatrudnenia, podobnie jak ich wartość, z każdym kolejnym rokiem wzrastała. Co prawda w dwóch pierwszych latach okresu badawczego udział był bardzo zbliżony i nie przekroczył 25%, jendakże w roku 2015 wzrósł o 2,2% w stosunku do roku poprzedniego, a w ostatnim o kolejne 2,1 % w porównaniu z rokiem 2015 i ostatecznie koszty zatrudnienia stanowiłu 30,4 % kosztów całkowitych. Uwzgledniając zatem cały okres objeęy analizą udział kosztów zatrudnienia w łącznych kosztach badanej spółki zwiekszył się o 4,9%.
Niezwykle ważnym czynnikiem wpływajacych na poziom osiąganych przez przedsiebiorstwo przychodów są pracownicy. Coroczny wzrost kosztów zatrudnienia ma swoje odzwierciedlenie w osiaganych przychodach, co przedstawiono na wykresie 2.

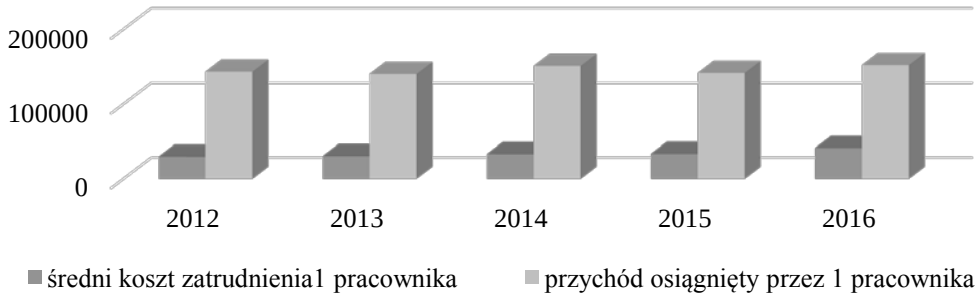


Wykres 2. Udział kosztów pracy w łącznych przychodach badanego przedsiębiorstwa w latach 2012-2016

Źródło: Opracowanie własne na podstawie danych spółki

Analizując dane zestawione na wykresie 2 wynika, że udział kosztów zatrudnienia w całkowitych przychodach spółki w trzech pierwszych latach okresu badawczego wahał sie między 20,6 w roku 2012, a 21,7% w roku 2014. W roku kolejnym na skutek dalszego wzrostu przychodów, przy jednoczesnym wzroście kosztów pracy, ich udział zwiększył sie o 1,8%. Natomiast w roku 2016 w następstwie wprowadzenia rok wczesniej nowego wyrobu zaspokającego oczekiwania klientów z jednej strony wzrosło zatrudnienie, a co się z tym wiąże i koszty pracy, ale z drugiej przedsiębiorstwo osiągnęło rekordowy przychód na poziomie niemal 5 800 tys zł. Wzrost kosztów zatrudnienia o 460 tys zł w stosunku do roku wcześniejszego spowodowło zwiększenie o 1 110 tys zł przychodów w porównaniu z rokiem 2015. Porównując natomiast dwa skrajne lata badawcze okazuje się, że zwiąkszając koszty

zatrudnienia o 795 tys zł w roku 2016 w stosunku do roku bazowego pozwliło na osiągniecie w ostatnim roku objętym badaniem przychodów o 2 060 tys zł wyższych niż w roku 2012.



Wykres 3. Przychody i koszty zatrudnienia przypadające na 1 pracownika w latach 2012-2016

Źródło: Opracowanie własne na podstawie danych spółki

Na podstawie danych przedstawionych na wykresie 3 można stwierdzić, że liczba zatrudnionych pracowników oraz wypracowane przez nich przychody są ze sobą powiązane. Wraz ze wzrostem liczby pracowników, a tym samym kosztów zwiazanych z ich zatrudnieniem, zmianie ulega wartość przychodu wypracowanego przez jednego pracownika. Pomimo wysokiego udziału kosztów zatrudnienia w kosztach ogółem, zwiększenie liczby zatrudnionych pracowników pozwala spółce na uzyskanie coraz wyższych przychodów. Z wyjątkiem roku 2015, w którym w wyniku niewielkiego wzrostu przychodów spółki w porównaniu z rokiem wcześniejszym przychody na jednego zatrudnionego nieznacznie zmalały, każdy nowo zatrudniony pracownik pozwalil jednostce zwiększyć osiągane w danym okresie przychody.

ZAKOŃCZENIE

Zatrudnianie pracowników wiąże się z ponoszeniem kosztów, przede wszystkim na wynagrodzenia, ale także związanych z finansowaniem składek na ubezpieczenie społeczne. Nie są to jednak wszystkie koszty związane z zatrudnieniem, bowiem należy do nich również zaliczyć koszty świadczeń realizowanych na rzecz pracowników. Niemniej jednak osoby zarządzające badanym przedsiębiorstwem zdają sobie sprawę, że mimo nieustannego unowocześniania praku maszynowego czynnik ludzki będzie stale odgrywał istotna rolę w funkcjonowaniu spółki. Pomimo wysokich kosztów, zwiazanych głównie z utrzymaniem pracowników, praca zatrudnionych w jednostce osób przynosi wymierne korzyści dla przedsiebiorstwa. Przekłada się na poziom osiąganych przychodów, a tym samym na poziom zysku, co w dalszej kolejności umożliwia dalszy rozwój spółki.

Literatura

1. *Zarządzanie kosztami przedsiebiorstwa w warunkach globalizacji. Cz. 1.* Red. CHLUSKA, J. Częstochowa: Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, 2012, 36 s. 48 s. ISBN 978-83-63500-02-3.
2. *Zarządzanie kosztami przedsiebiorstwa w warunkach ryzyka. Aspekty praktyczne i teoretyczne.* Red. CHLUSKA, J., RUBIK, J. Częstochowa: Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, 2014. 225 s. ISBN 978-83-63500-73-3.

Contact

Patrycja Kokot-Stępień, Ph.D.
Faculty of Management of Czestochowa University of Technology
Armii Krajowej 19B, Częstochowa, Poland, email: patrycja@zim.pcz.pl

VPLYV VYBRANÝCH UKAZOVATEĽOV NA DAŇOVÉ ÚNIKY

THE LINK BETWEEN SLECTED INDICATORS AND TAX EVASION

Kamil Ščerba, Michaela Novotná

Abstrakt

Daňové úniky sú globálnym spoločenským problémom, ktorému musia čeliť rozvojové, rozvíjajúce sa a tranzitívné ekonomiky. Daňový únik a tieňová ekonomika deformujú hospodárske prostredie, ohrozujú proces verejného rozpočtovania a v dôsledku toho obmedzujú schopnosť vlády vykonávať hospodársku politiku. Rozsah daňových únikov sa často odvodzuje z rôznych faktorov, ktoré majú priamy alebo nepriamy vplyv na hospodárstvo a súvisia s daňovým únikom. Cieľom článku je preskúmať vplyv a závislosť vybraných ukazovateľov (HDP, inflácia, daňovo-sociálna zaťaženie a nezamestnanosť) na mieru daňových únikov v Európskej únii na základe korelačnej analýzy a regresnej analýzy. Článok využíva údaje z databáz Eurostatu a Svetovej banky za obdobie rokov 2000 - 2015.

Klíčová slova: *daňový únik, verejné služby, Európska únia*

Abstract

Tax evasion is a global societal problem that developed, developing and transit economies have to face. Tax evasion and the shadow economy deforms the economic environment, jeopardizes the process of public budgeting and, as a result, limits the government's ability to implement economic policy. The extent of tax evasion is frequently deduced from various factors that have a direct or indirect effect on the economy and are related to tax evasion. The aim of the article is to investigate the impact and dependence of selected indicators (GDP, inflation, tax-social burden and unemployment) on the degree of tax evasion in the European Union on the basis of correlation analysis and regression analysis. The article uses data from Eurostat and World Bank databases for the period of 2000 - 2015.

Key words: *tax evasion, public services, European Union*

1 ÚVOD

Neplnenie si daňových povinností je významným problémom vo väčšine ekonomík sveta. Daňové úniky súvisia s tieňovou ekonomikou a preto v celom príspevku budeme tieto dva pojmy stotožňovať. Všeobecnú definíciu tieňovej ekonomiky nachádzame u Fassmanna (2007), ktorý ju charakterizuje ako tie príjmy, resp. činnosti, ktorých najhlavnejším záujmom je, aby zostali skryté, ďalej neformálne aktivity alebo transakcie, ktoré nezahŕňajú platby a činnosti, ktoré v konečnom dôsledku vedú k oficiálnemu príjmu, ale zdroj je v rozpore s platnými pravidlami, nariadeniami a dohodami. S označením tieňová ekonomika sa stotožňuje aj Medveď, Nemec a kol. (2011), ktorí uvádzajú, že skrytá ekonomika vytvára tiene spoločnosti. Okrem pomenovania tieňová ekonomika sa v literatúre stretávame s rôznymi pojmami. Ondruš (2001) definuje skrytú ekonomiku ako ekonomickú aktivitu, ktorá prináša príjmy tomu, kto ju uskutočňuje, a ktoré nemôžu byť odhadnuté v žiadnych štatistických zdrojoch používaných pri zostavovaní HDP. Kadera (2007) zohľadňuje okrem štatistického kritéria aj legálnosť a definuje šedú (čiernu) ekonomiku ako nelegálne aktivity oficiálne štatisticky nezaznamenané a teda nezdanené. Ako sme uviedli, existuje viacero definičných vymedzení pojmu tieňová (skrytá) ekonomika. Skúmaním tieňovej ekonomiky sa zaoberá Schneider a Enste (2000) a v ich práci nachádzame dichotómiu tieňovej ekonomiky a

daňových únikov. Vychádzal z analýzy Lipperta a Walkera a do istej miery vysvetľuje zhodu medzi jednotlivými teoretickými prístupmi. O ďalšie nové prístupy Schneiderovu a Ensteho dichotómiu rozšírila i Orviská (2013), ako vidíme v tabuľke.

Tabuľka 1 Taxonómia daňových únikov a tieňovej ekonomiky

Nelegálne daňové úniky z legálnych aktivít	
Peňažné transakcie	Nepriznaný príjem z vlastnej práce, platy, aktíva a príjmy z práce spojenej s legálnymi statkami a službami, vrátane nepriznaného príjmu na zahraničných bankových účtoch.
Nepeňažné transakcie	Barterový obchod s legálnymi tovarmi a službami.
Náklady	Riziko a pokuty v prípade odhalenia, so sociálnou stigmou, potenciálne straty prístupu k právnej ochrane a bezpečnosti.
Legálne daňové úniky	
Peňažné transakcie	Zamestnanecké výhody a zľavy, presun dôchodkov medzi jednotlivcami, vyhýbanie sa plateniu dane presunom z krajiny s vysokým daňovým zaťažením do krajiny s nízkym daňovým zaťažením.
Nepeňažné transakcie	Všetka svojpomocná práca a susedská výpomoc.
Náklady	Náklady finančných poradcov, potenciálna sociálna stigma a strata podnikateľskej značky.
Tieňová ekonomika	
Nepeňažné transakcie	Legálne aktivity, ktoré nie sú vykazované s cieľom vyhnúť sa plateniu daní a nelegálne aktivity, ako barterové obchody, obchod s kradnutým tovarom, výroba a distribúcia drog, prostitúcia, hazardné hry, podvody, sprenevera a pod., trhovo orientované, ale nedeklarované aktivity súvisiace s internetom.

Zdroj: Spracované podľa Orviskej (2013)

Ako vyplýva z dichotómie, daňový únik spolu s ďalšími uvádzanými aktivitami súvisí s tieňovou ekonomikou. V slovenskej legislatíve nájdeme definíciu daňového nedoplatku a daňového podvodu. V zákone č. 511/1992 Zb. o správe daní a poplatkov a o zmenách územných finančných orgánov v znení neskorších predpisov sa uvádza daňový nedoplatok ako suma dane, ktorá nebola zaplatená v lehote a vo výške ustanovujúcej týmto zákonom. Daňový podvod je zakotvený v Zákone č. 300/2005 Z. z. ako neoprávnené uplatnenie nároku na vrátenie DPH alebo spotrebnej dane s úmyslom zadovážiť sebe alebo inému neoprávnený prospech. Orviská a Hudson (2003) vidia v daňovom úniku zdroj určitej straty príjmu vlády, čo sa v konečnom dôsledku prejaví absenciou prostriedkov verejného sektora a nespravodlivým daňovým zaťažením poctivých daňovníkov. Paulíčková (2002) uvádza, že daňové úniky nepredstavujú len krátenie daňových príjmov štátu, ale majú význam aj na uplatňovaní princípu dobrovoľného platenia daní poctivými daňovníkmi. Ak si poctivý daňovník uvedomí, že v jeho okolí dochádza k zatajovaniu príjmov, alebo k nadhodnocovaniu daňovo uznaných výdavkov, bude to vnímať ako daňovú nespravodlivosť a začne sa vyhýbať plateniu daní. Martinez (1995) chápe daňový únik ako porušovanie zákona (v užšom zmysle slova), resp. v širšom zmysle slova ako vyhýbanie sa daňovej povinnosti prostredníctvom medzier v zákonoch, ktoré zákonodarca nemal pri tvorbe legislatívy na mysli. Podľa Lenártovej (2015) je daňovým únikom účelové správanie sa ekonomického subjektu s cieľom znížiť, alebo úplne anulovať daňovú povinnosť voči štátu. Ako vyplýva z predchádzajúcej časti, existuje viacero prístupov k vysvetleniu podstaty daňového úniku. Názory autorov sa v niektorých prípadoch rovnako rôznia aj pri klasifikácií daňových únikov.
Autori Dvořáček a Tyll (2010) rozlišujú len daňovú optimalizáciu a daňový únik v zmysle nelegálneho daňového úniku. Klimešová (2014) v rámci daňových únikov rozlišuje dva druhy a to podľa toho, či sa dané aktivity pohybujú v rovine zákona (legálne daňové úniky), alebo ho prekračujú (nelegálne daňové úniky). Rovnaký pohľad na klasifikáciu daňových únikov nachádzame aj u Širokého a kol. (2008). V zahraničnej literatúre sa stretávame s označením týchto druhov daňových únikov ako tax avoidance a tax evasion. Tax avoidance chápeme ako

vyhýbanie sa plateniu daní prostredníctvom legálnych aktivít, na druhej strane tax evasion predstavuje daňový únik spôsobený nelegálnom činnosťou. Landgráf (2015) doplnil toto členenie o tax fraud – daňový podvod. Daňovým podvodom sa podľa neho chápe úmyselné vyhýbanie sa dani a zahŕňa situácie, v ktorých sú napríklad zámerne predkladané nepravdivé daňové priznania či tvorba falošných dokumentov. Jendroľ a Fecková (2013) dopĺňajú k legálnemu a nelegálnemu daňovému úniku aj tzv. neúmyselný daňový únik, ku ktorému dochádza z neznalosti často sa meniacej legislatívy. Široký (2008) vysvetľuje legálne daňové úniky ako tie, ktoré sú v súlade s platnou legislatívou. Ide o šikovné využívanie možností ponúkaných zákonom. Pri legálnych daňových únikoch sa neporušuje legislatíva a teda nedochádza k páchaniu trestnej činnosti. Martinez (1995) však poukazuje na to, že legálny daňový únik je u odborníkov považovaný za nezmyselný, nakoľko neplatenie daní považujú za trestný čin, a teda z tohto dôvodu nemôže existovať legálny daňový únik a skôr odporúča využívať pojem vyhýbanie sa dani. K vyhýbaniu sa dani sa najčastejšie využívajú zákonne medzery. Vančurová a Láchová (2012) však považujú takéto dosiahnuté daňové výhody za dočasné, pretože ak sa začnú využívať v širšom rozsahu, dôjde k zmene daňovej legislatívy. Autorka ďalej poukazuje na fakt, že vyhýbanie sa dani nie je v rozpore so zákonom, avšak je nemorálne a nepriamo zvyšuje daňové zaťaženie ostatných daňovníkov, čím je narúšaná daňová spravodlivosť. Podľa Martineza (1995) sa legálne vyhýbanie dani člení na:

- to, ktoré je umožnené zákonom – daňová úspora, daňová optimalizácia,
- zdržanie sa zdaniteľnej činnosti,
- využívanie medzier v daňovom systéme.

Daňovou úsporou a daňovou optimalizáciou označuje Barcaj (2000) také správanie sa ekonomického subjektu, ktorého hlavným účelom je minimalizovať jeho daňovú povinnosť za použitia legálnych, legislatívou dovolených postupov. Franke (2004) sa stotožňuje s Barcajom a dopĺňa, že trestnými sa stávajú tieto činnosti v prípade, že sú dosiahnuté trestnými prostriedkami a to nesprávnym daňovým priznaním alebo nepriznaním príjmu. Európska komisia (v príspevku Boj proti daňovým podvodom a daňovým únikom z roku 2013) definuje daňový podvod ako zámerné vyhýbanie sa dani, ktoré je trestným činom. Daňové úniky podľa definície Európskej komisie zahŕňajú nelegálne postupy, pri ktorých sa daňová povinnosť skrýva alebo ignoruje. Tichá (2007) člení nelegálne daňové úniky na neúmyselné, úmyselné v menšom rozsahu a na úmyselné vo väčšom rozsahu. Pauličková (2005) rozdeľuje nelegálne daňové úniky na daňovú defraudáciu a daňovú malverzáciu. Daňová defraudácia označuje zatajenie takých skutočností, ktoré sú podstatné pre správne určenie dane (môže ísť napríklad o zatajenie časti zdaniteľného majetku). Daňová malverzácia predstavuje nepriznanie časti príjmov.

2 CIEĽ A METÓDY

Cieľom článku je preskúmať vplyv a závislosť vybraných ukazovateľov na mieru daňových únikov v Európskej únii na základe korelačnej analýzy regresnej analýzy.

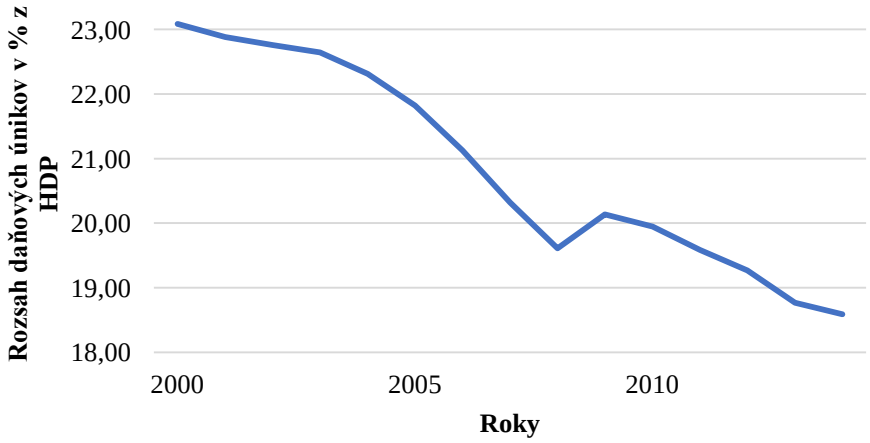
Pri skúmaní bola využitá korelačná analýza, cez koeficienty korelácie a determinácie na preskúmanie závislosti ukazovateľov ako HDP, inflácia, nezamestnanosť a daňovo-sociálne zaťaženie a regresná analýza na preskúmanie závislosti ukazovateľov ako priame a nepriame dane, inflácia, HDP per capita, kvalita verejných inštitúcií, kvalita služieb a daňová morálka na mieru daňových únikov v Európskej únii za sledované obdobie rokov 2000 až 2015.

Článok využíva údaje z databáz Eurostatu a Svetovej banky za obdobie rokov 2000 - 2015. Príspevok v sebe zahŕňa aj výsledky skúmania viacerých autorov, ako sú Schneider, Enste, Buehn, Montenegro a ďalší, na základe ktorých článok poskytuje prehľad o situácii v oblasti daňových únikov.

3 VÝSLEDKY A DISKUSIA

Pre posúdenie rozsahu daňových únikov v krajinách EÚ sme si zvolili odhady daňových únikov a tieňovej ekonomiky vyčíslené prostredníctvom MIMIC modelu použitého autorom Schneider (2015) a Schneider, Buehn, Montenegro (2010). Diela týchto autorov predstavujú doteraz najsúvislejšiu dostupnú množinu dát pre krajiny EÚ v oblasti daňových únikov. Pre tento model sme sa rozhodli, pretože ho považujeme za model v súčasnosti poskytujúci najrelevantnejšie a najkonzistentnejšie výsledky, ktoré vyplývajú z jeho konštrukčných predpokladov. Autori pri aproximácii tieňovej ekonomiky pracujú so zúženou definíciou tieňovej ekonomiky. Táto tieňovú ekonomiku chápe ako legálne podnikateľské aktivity ekonomických subjektov vykonávané mimo dosahu vládnych autorít (Schneider, 2015). Z toho vyplýva, že nezachytáva úniky z nelegálnych aktivít kriminálneho charakteru (predaj drog, prostitúcia, majetková trestná činnosť a iné), domácu prácu a susedskú výpomoc. Úspešnosť a rozšírenosť tejto metódy hlavne v 21. storočí potvrdzuje veľké množstvo štúdií napríklad autorov Giles, Tedds, Werknech, Schneider a iní (Schneider, Buehn, 2016).

Graf 1 Vývoj daňových únikov v EÚ za sledované obdobie

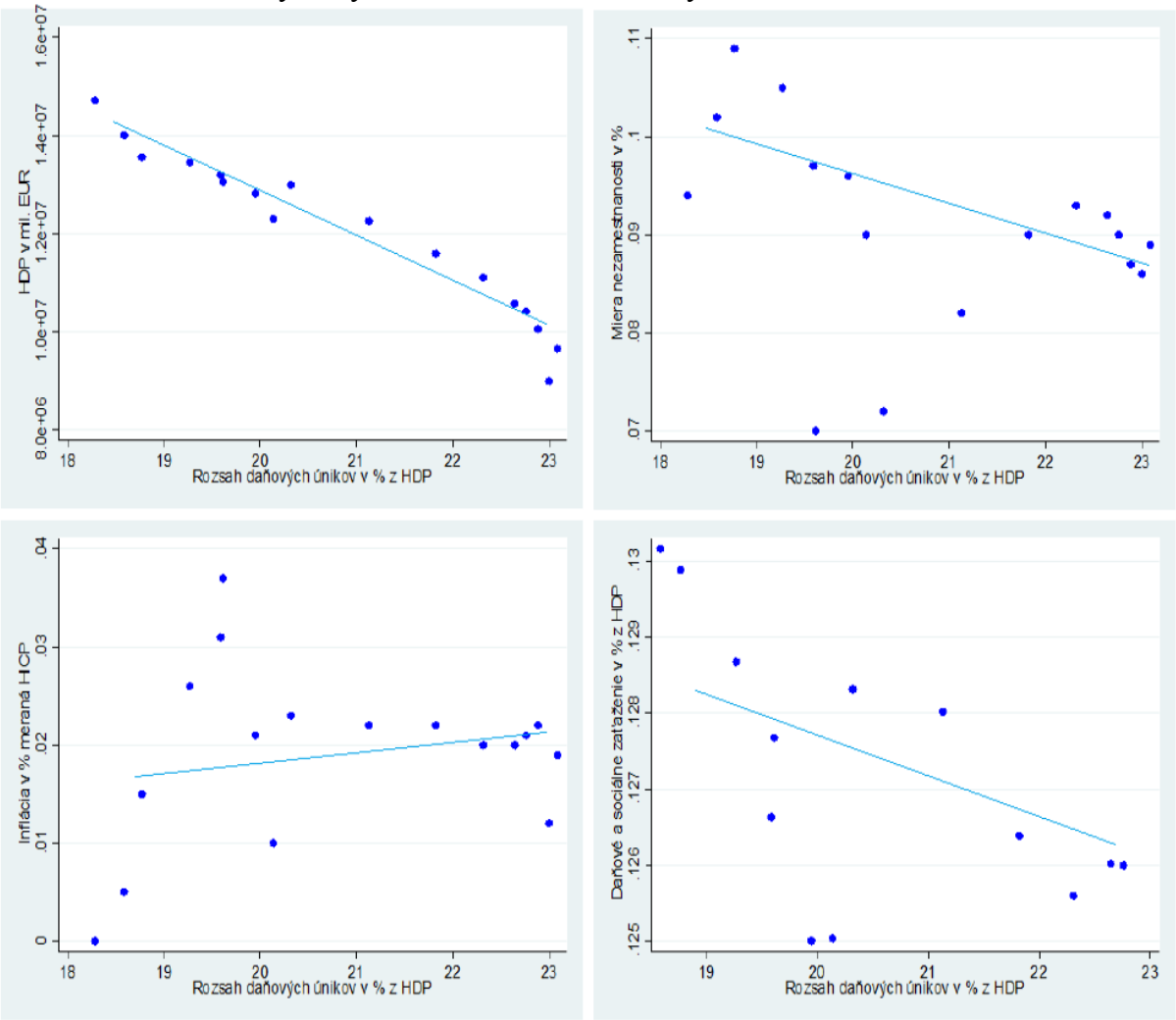


Zdroj: Spracované podľa Schneider, Buehn, Montenegro 2010, Schneider 2015

Na základe grafu môžeme konštatovať, že daňové úniky dosahujú v EÚ klesajúci trend v sledovanom období. Od roku 2000 do roku 2015 poklesli v priemere o 4,7 percentuálnych bodov a to z hodnoty 23 % na hodnotu 18,29 % z HDP. Tento pozitívny vývoj môže byť spôsobený znižovaním daňového zaťaženia v mnohých členských krajinách, postupnou deregulácioU, poklesom používania hotovosti, zvýšenou spoluprácou pri odhaľovaní a prevencii daňových únikov v EÚ, prijatím opatreniam v oblasti daňovej politiky a iné. Najväčší význam však pripisujeme ekonomickému rastu, pretože v prípade pozitívneho ekonomického vývoja je motivácia ekonomických subjektov participovať na aktivitách vedúcich k daňovým únikom nižšia. V sledovanom období HDP medziročne takmer výlučne rastie, aj keď v tempe rastu možno pozorovať mierne kolísanie. Jediným narušením v klesajúcom vývoji daňových únikov je obdobie 2008 až 2009, v ktorom v Európe vypukla finančná kríza. Do tohto obdobia je možné vo väčšine krajín EÚ sledovať ekonomický rast, ktorý je sprevádzaný poklesom rozsahu daňových únikov. Účinky finančnej krízy na spotrebu viedli k vzniku celosvetovej hospodárskej krízy. Negatívne sa prejavila na ekonomickom raste, čo potvrdzuje prudký pokles HDP v roku 2009 o 4,4 %. Negatívny vývoj v hospodárstve krajín a snaha ekonomických subjektov o zachovanie konštantných príjmov viedla k medziročnému rastu daňových únikov o 0,52 percentuálneho bodu. Po vypuknutí hospodárskej krízy a následne dlhovej krízy v Európe, sa tempo poklesu daňových únikov mierne spomalilo, aj keď pomerne rýchlo rozsah daňových únikov dosiahol úroveň pred

krízou. Za celé sledované obdobie môžeme konštatovať, že v priemere daňové úniky v EÚ dosiahli úroveň 20,7 % z HDP. Možno sledovať ich takmer konštantný pokles, o čom svedčí relatívne nízka miera variability v sledovanom súbore.
Pre lepšie posúdenie vývoja daňových únikov sme sa rozhodli sledovať ich vývoj spolu s vývojom základných makroekonomických ukazovateľov a to HDP, nezamestnanosť a inflácia. Vzhľadom na charakter daňových únikov sme sa rozhodli taktiež skúmať vplyv a koreláciu medzi daňovými únikmi a daňovým a sociálnym zaťažením. Daňové a sociálne zaťaženie je reprezentované celkovými príjmami plynúcimi z daňových a sociálnych príspevkov a vyjadrené ako percentuálny podiel z HDP. Vzájomnú súvislosť medzi jednotlivými premennými sme hodnotili na základe grafickej analýzy a prostredníctvom štatistických ukazovateľov zisťujúcich existenciu súvislosti medzi nimi a jej tesnosť.

Graf 2 Korelácia medzi vybranými ukazovateľmi a daňovými únikmi



Zdroj: Spracované podľa Schneider, Buehn, Montenegro, 2010; Schneider, 2015; Eurostat

Tabuľka 2 Vybrané štatistické ukazovatele hodnotiace vzťah medzi makroekonomickými ukazovateľmi a daňovými únikmi

Daňové úniky		
HDP	Koeficient korelácie	-0,9707
	Koeficient determinácie	0,9423
Inflácia	Koeficient korelácie	0,1823
	Koeficient determinácie	0,0332
Nezamestnanosť	Koeficient korelácie	-0,3290
	Koeficient determinácie	0,1082
Daňové a sociálne zaťaženie	Koeficient korelácie	-0,2028
	Koeficient determinácie	0,0411

Zdroj: Spracované podľa Schneider, Buehn, Montenegro, 2010; Schneider, 2015; Eurostat

Ako sme naznačili aj v predchádzajúcej časti tejto kapitoly, práve vývoj ekonomiky, ktorý môže byť meraný zmenami v HDP, považujeme za veľmi silný motivátor participácie na daňových únikoch. Analýza vzťahu medzi týmito premennými potvrdzuje náš predpoklad. Na základe vybraných štatistických ukazovateľov môžeme konštatovať, že medzi daňovými únikmi a HDP existuje veľmi silná nepriama lineárna súvislosť, ktorú potvrdzuje aj grafické zobrazenie tohto vzťahu (graf 2). Zmeny vo vývoji daňových únikov môžu byť na 94 % vysvetlené práve zmenami v ekonomickom vývoji. Tento vzťah zodpovedná ekonomickej teórii, ktorá predpokladá, že v období hospodárskej expanzie je motivácia ekonomických subjektov platiť dane vyššia (Medveď a kol., 2009).
Korelačný koeficient ďalej naznačuje, že medzi daňovými únikmi a nezamestnanosťou existuje stredne silná korelácia, ktorá sa však nachádza tesne nad spodnou hranicou. V komparácii s grafickou analýzou môžeme konštatovať, že vzťah medzi týmito premennými je možné len ťažko lineárne aproximovať a premenné sa zdajú byť zdanlivo nezávislé (graf 2). Malú mieru závislosti naznačuje aj skutočnosť, že len 11 % zmien v rozsahu daňových únikov je možné prisúdiť vývoju nezamestnanosti. Z analýzy vyplýva, že ďalšie dve premenné nemajú významný vplyv na vývoj daňových únikov, pretože ich zmenami je možné vysvetliť len menej ako 5 % zmien v ich rozsahu.
Pri ďalšom skúmaní cez regresnú analýzu, ktorú sme vykonali na dátach zahŕňajúce skúmané obdobie a krajiny Európskej únie sme dostali výsledky, ktoré sú zobrazené v tabuľke.

Tabuľka 3 Odhady vplyvu vysvetľujúcich premenných na rozsah daňových únikov v krajinách EÚ v sledovanom období

Oblasť	Vysvetľujúce premenné	Odhady parametrov
Daňové a sociálne zaťaženie	Priame dane	nevýznamné
	Nepriame dane	nevýznamné
Kvalita vládny inštitúcií	Efektívnosť vlády	2,9488* (8,87)
Daňová morálka	Daňová morálka	nevýznamné
Kvalita verejných služieb	Vládne výdavky na verejné služby	-0,2967* (-3,94)
Stav oficiálnej ekonomiky	GDP per capita	-5,7476* (-23,23)
	Inflácia	0,0643* (2,79)

Zdroj: Spracované na základe výsledkov regresnej analýzy
Poznámka: v zátvorke sa nachádza hodnota t/z-štatistiky, * vyjadruje 1 % hladinu významnosti, ** vyjadruje 5 % hladinu významnosti, (*) vyjadruje hladinu významnosti > 10 %,

Uskutočnená regresná analýza potvrdila významný vplyv 4 skúmaných faktorov. Najvýznamnejšie na motiváciu daňovníkov podieľať sa na tieňových aktivitách vplýva daňové a sociálne zaťaženie (nepriame dane), kvalita vládnych inštitúcií (efektívnosť vlády), kvalita verejných služieb (vládne výdavky na verejné služby) a stav oficiálnej ekonomiky,

reprezentovaný ukazovateľmi GDP per capita a miera inflácie. Kvantitatívny účinok signifikantných vysvetľujúcich premenný je v prípade kvality verejných služieb, nepriamych daní a vplyvu inflácie zanedbateľný. Zmeny zvyšných dvoch premenných relatívne výrazne ovplyvnia vývoj daňových únikov.

4 ZÁVER

Daňové úniky sú súčasťou každého ekonomického systému a výnimku nepredstavujú ani členské krajiny EÚ. Náš príspevok mal za cieľ na základe korelačnej a regresnej analýzy zhodnotiť vplyv vybraných ukazovateľov na mieru daňových únikov v Európskej únii za sledované obdobie rokov 2000 až 2015.

Z výsledkov korelačnej analýzy sme zistili, že na daňové úniky z vybraných ukazovateľov vplýva najviac výška HDP a to nepriamo úmerne, čo nám potvrdzuje aj grafické znázornenie. Ďalšie ukazovatele ako sú nezamestnanosť, inflácia a daňovo-odvodové zaťaženie zasa na mieru daňových únikov vplývajú v oveľa menšej miere, alebo ich vplyv je len zanedbateľný. Pri pohľade na regresnú analýzu vidíme, že výsledky nám priniesli obraz o dôležitosti nielen rozvinutosti krajiny meranou HDP, ale i o dôležitosti a nevyhnutnosti kvality vládnych inštitúcií a kvality verejných služieb, ktoré významným spôsobom vplývajú na daňové úniky.

Použitá literatura

1. BARCAJ, T. 2000. Daňové úniky I. In *Daňový a účtovný poradca podnikateľa*, roč. 1, 2000. ISSN 1335-0897.
2. Boj proti daňovým podvodom a daňovým únikom. [online]. [cit. 2017-18-01]. Dostupné na internete: < http://ec.europa.eu/europe2020/pdf/tax_sk.pdf>.
3. DVOŘÁČEK, J., TYLL, L. 2010. *Outsourcing a offshoring podnikatelských činností.* Vydavateľstvo : C. H. Beck, 2010. 208 s. ISBN 9788074000102.
4. FASSMANN, M. 2007. *Stínová ekonomika a práce na černo.* Praha : Sondy, 2007. 358 s. ISBN 978-808-6846-217.
5. FRANKE, S. 2004. Hranice mezi optimalizací daní a trestným činem v daňové oblasti – z aspektu nemeckého práva. In Trestněprávní revue. 2004. č. 9/2004.
6. JENDROĽ, O., FECKOVÁ, L. 2013. Moţnosti eliminácie daňových únikov. In: *Odhaľovanie daňových únikov a daňovej trestnej činnosti: zborník vedeckých štúdií z vedeckej konferencie konanej v rámci vedecko-výskumnej úlohy "Odhaľovanie daňových únikov a daňovej trestnej činnosti" evidovanej na Akadémii Policajného zboru v Bratislave pod č. 164*. Editor Jozef Stieranka. Plzeň : Vydavatelství a nakladatelství Aleš Čeněk, 2013. ISBN 9788073804565.
7. KADERA, V. 2007. *Význam a role stínové ekonomiky v transformačním období ČR*. In : FASSMANN, M. 2007. *Stínová ekonomika a práce na černo*. Praha : Nakladatelství Sondy, 2007. 358 s. ISBN 978-808-6846-217.
8. KLIMEŠOVÁ, L. 2014. *Daňová optimalizace*. Praha: Ústav práva a právní vědy, 2014, 248 s. ISBN 9788087974063.
9. LANDGRÁF, R. 2015. Uplatňování extralegálních argumentů v daňovém právu (právní moralismu versus legalismus v daňovém právu). [online]. [cit. 2017-19-02]. Dostupné na internete:<http://www.mzdovapraxe.cz/archiv/dokument/doc-d51505v63176-uplatnov ani-extralegalnich-argumentu-v-danovem-pravu-pravni/?>.
10. LÉNÁRTOVÁ, G. 2015. *Daňové systémy.* Bratislava : EKONÓM, 2015. 299 s. ISBN 978-80-225-4029-2.
11. MARTINEZ, J. 1995. *Daňový únik.* Praha : HZ, 1995. 144 s. ISBN 80-901918-3-5.
12. MEDVEĎ, J., NEMEC, J. a kol. 2011. *Verejné financie.* Bratislava : Sprint dva, 2011. 640 s. ISBN 978-80-89393-46-6.

13. ONDRUŠ, V. 2001. Zachycení skryté ekonomiky v národních účtech kandidátskych zemí. In: Statisktika, 2001. roč. 38. č. 6. ISSN 0322-788X.
14. ORVISKÁ, M. 2013. *Daňové úniky a tieňová ekonomika: širšie implikácie v podnikaní a financiách.* Košice, 2013. 71 s.
15. ORVISKÁ, M., HUDSON, J. 2003. Tax Evasion, Civic Duty and the Law Abiding Citizen. In *European Jorunal of Political Economy,* roč. 19, 2003, č. 1. ISSN 0176-2680.
16. PAULÍČKOVÁ, A. 2002. *Nepriame dane v Slovenskej republike.* Vydavateľstvo : Eurounion, 2002. 119 s. ISBN 808898436X.
17. PAULÍČKOVÁ, A. 2005. Daňové úniky a daňové raje ako osobitné finančno-právne problémy. In *Mezinárodní a srovnávací právní revue,* roč. 5, 2005, č. 14. ISBN 1213-8770.
18. SCHNEIDER, F., ENSTE, D. 2000. *Shadow Economies: Size, Causes, and Consequences.* [online]. [cit. 2017-18-01]. Dostupné na internete : <http://www.economics.uni-linz.ac.at/members/Schneider/files/publicatio ns/JEL.pdf>.
19. SCHNEIDER, F. 2015. *Size and Development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2015: Different Developments* [online]. [cit. 2017-26-04]. Dostupné na internete: <http://www.econ.jku.at/members/S chneider/files/publications/2015/ShadEcEurope31.pdf>.
20. SCHNEIDER, F., BUEHN, A., MONTENEGRO, C. E. 2010 *Shadow Economies all over the World: New Estimates for 162 OECD Countries from 1999 to 2007.* [online]. 55 s. [cit. 2017-30-01]. Dostupné na internete : <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5356>.
SCHNEIDER, F., BUEHN, A. 2016. *Estimating the Size of the Shadow Economy: Methods, Problems and Open Questions.* [online]. 42 s. [cit. 2016-30-10]. Dostupné na internete : <http://ftp.iza.org/dp9820.pdf>.
21. ŠIROKÝ, J. a kol. 2008. *Daňová teorie*. Praha : C. H. Beck, 2008. 301 s. ISBN 978-80-7400-005-8.
22. TICHÁ, M. 2007. *Daňové úniky- institucionální aspekty* [online]. [cit. 2017-29-01]. Dostupné na internete : <http://kvf.vse.cz/storage/1180483352_sb_ticha.pdf>.
23. VANČUROVÁ, A., LÁCHOVÁ, L. 2012. *Daňový systém ČR 2012.* Vydavateľstvo : VOX, 2012. 372 s. ISBN 9788087480052.
24. Zákon č. 300/2005 Z. z. . [online]. [cit. 2017-18-01]. Dostupné na internete : <http://www.zakonypreludi.sk/zz/2005-300>.
25. Zákon o správe daní a poplatkov 511/1992 Zb. [online]. [cit. 2017-18-01]. Dostupné na internete:<http://www.zakonypreludi.sk/obor/51123>.

Kontaktní údaje

Ing. Kamil Ščerba
Univerzita Mateja Bela v Banskej Bystrici, Ekonomická fakulta
Tajovského 10, 975 90 Banská Bystrica
Tel: +421 446 63 14
email: kamil.scerba@umb.sk

Ing. Michaela Novotná
Univerzita Mateja Bela v Banskej Bystrici, Ekonomická fakulta
Tajovského 10, 975 90 Banská Bystrica
Tel: +421 446 63 14
email: michaela.novotna@umb.sk

PSYCHOLOGIE, SOCIOLOGIE A PEDAGOGIKA

PSYCHOLOGY, SOCIOLOGY AND PEDAGOGY

NUMBER OF PAPERS: 53



TEORETICKÁ PARADIGMA VÝTVARNÉHO NADANIA A TALENTU

THEORETICAL PARADIGM OF ARTISTIC GIFTS AND TALENT

Daniela Valachová

Abstrakt

Príspevok prezentuje teoretickú paradigmu výtvarného nadania a talentu. Problematika nadania a talentu všeobecne je vo vedeckých štúdiách riešená pomerne. Avšak špecifická výtvarného nadania a talentu absentujú. Príspevok sa zameriava na uvedenú oblasť v kontexte výtvarného nadania a talentu. Cieľom príspevku je zamerať sa na teoretickú stránku uvedenej problematiky, ako vstupu do pripravovaného výskumu.

Klíčová slova: *teoretická paradigma, nadanie, talent, výtvarná výchova*

Abstract

The article presents a theoretical paradigm of artistic gifts and talent. General issues of gifts and talent are relatively well addressed in scientific studies. However, specifics of artistic gifts and talent are absent. The article focuses on this area in the context of artistic gifts and talent. The aim of the article is to focus on the theoretical aspects of the subject as an entry to an upcoming research.

Key words: *theoretical paradigm, gift, talent, art education*

ÚVOD

Problematiku nadania a talentu riešime už dlhšie a máme na to niekoľko dôvodov. Problematika nadania a talentu sa rieši skôr v iných oblastiach ako výtvarné nadanie a talent, preto sa náš záujem obrátil na výtvarné nadanie. Vo výtvarnom prejave nevieme presne čo je to nadanie a talent, skôr to tušíme. A taktiež bol dôvodom k riešeniu problematiky výskumný projekt vedeckej grantovej agentúry Vega.

1 VÝTVARNÉ NADANIE A TALENT

Nadanie a talent sú výrazy a termíny úzko spojené s umelecko-výchovnými odbormi. Vieme však povedať čo charakterizuje umelecké nadanie? V súčasnosti môžeme nájsť rôzne definície pojmu nadanie. Od vrodených predpokladov, nadpriemerných schopností až k tvorivosti a hlboký záujem.

V literatúre môžeme nájsť oba termíny, talent a nadanie používane rôzne. Napr. talent ako aktualizované nadanie (Musil, 1982), nadanie ako potenciál pre intelektuálnu a talent pre mimo intelektuálnu činnosť (Wiliams podľa Hvozdíka 1978).

Dočkal tieto dva pojmy uvádza ako synonymá, teda používa ich ako rovnocenné.

Laznibatová chápe nadanie z viacerých aspektov, (Laznibathová, 2001, s. 57)

- Kvalitatívne osobitý súhrn schopností, ktoré podmieňujú úspešné vykonávanie činnosti, súčinnosť schopností, ktoré tvoria určitú štruktúru, umožňujú kompenzovať nedostatky niektorých schopností, vďaka prednostnému rozvoju iných schopností,
- Všeobecné schopnosti, alebo všeobecné prvky schopností,
- Rozumový potenciál alebo inteligencia,
- Súhrn vlôh vrodených daností, vrodených predpokladov,

- Existencia vnútorných podmienok na dosahovanie vynikajúcich výsledkov v činnosti (Laznibathová, 2001, s. 57).

Aj nadanie aj talent majú podľa E. Winnerovej (1996) spoločný triadický model:

- Nadaní jedinci sú predčasne zrelí
- Potrebujú minimálnu pomoc
- Chcú vyniknúť v oblasti, v ktorej sú nadaní

Talentovaný jednotlivec preukazuje svoje nadpriemerné a vysoko špecializované schopnosti v oblasti hudobného, výtvarného, tanečného a iného umenia, čiže hovoríme o tzv. umeleckom nadaní alebo talente. Nadanie chápeme ako výnimočnú všeobecnú intelektovú spôsobilosť.

Keďže aj v súčasnosti sú kritériá na odlíšenie termínu nadanie a talent stále vágne, v rám ci našej teoretickej paradigmy budeme tieto termíny používať ako synonymá. Podobne ako celý rad autorov, ako V. Dočkal, L. Hříbková, F. J. Mönks, A. J. Tannenbaum a pod.

Autori v anglosaskej literatúre tvrdia, že nadanie sa týka intelektových činností ako matematika, jazyky, a talent sa dotýka neintelektových činností ako šport, umenie a pod. Avšak k podobnému deleniu máme výhradu z hľadiska psychologickej podstaty činností ktorá je rovnaká, to znamená, že použitie intelektu je rovnaké pri oboch druhoch činností, aj pri športe ako aj pri písaní. Preto podľa nášho názoru sú oba pojmy totožné, pretože nemajú rôzne vedecky podložené definície.

1.1. Prístupy k štúdiu nadania

Od 20. storočia sú preferované tri základné teoretické prístupy k nadaniu:

- Kognitívny prístup. Má v psychológiu najdlhšiu tradíciu. Pôvodným záujmom autorom tohto smeru bolo skúmanie kognitívnych predpokladov detí a zisťovanie individuálnych rozdielov medzi deťmi. Výskumy boli zamerané na testovanie kognitívnych predpokladov, zameraných predovšetkým na výšku IQ.
- Osobnostne vývojový prístup. Zástancovia tohto prístupu chápu nadanie ako súhru viacerých osobnostných charakteristík. Tento model má veľa zástancov a ich myšlienky ovplyvňujú školskú politiku vo viacerých krajinách.
- Sociálno kultúrny prístup. Tento prístup spája v seba psychologické a pedagogické tendencie skúmaného problému. Ich uplatnenie je predovšetkým v pedagogickej praxi, kde je žiaduce riešiť nielen nadanie jednotlivca, ale aj súvisiace oblasti a problémy.

V súvislosti s umeleckým nadaním nám najviac vyhovuje sociálno-kultúrny prístup k štúdiu nadania. Najvýznamnejšími autormi, ktorí sa zaslúžili rozvoju tohto prístupu sú H. Gardner svojou teórií rozmanitých inteligencií, ďalej A. J. Tannenbauma, M. Csikszentmihalyi a R. E. Robinson.

Koncepcia M. Csikszentmihalyiho a R. E. Robinsona pri definovaní konceptu nadania vychádzajú z dvoch základných atribútov:

- talent nepovažujú za osobnostný rys alebo za vlastnosť osobnosti ale za výsledok vzájomného vzťahu medzi kultúrne determinovanými možnosťami pre činnosť alebo jednanie, alebo spôsobilosť jedinca k tomuto jednaniu alebo činnosti,
- talent nepovažujú za stabilný rys, pretože individuálne spôsobilosti k jednaniu sa menia v priebehu života a súčasne sa menia kultúrne podmienky, ktoré umožňujú podávanie výkonu.

Z uvedeného následne vyplýva otázka, je nadanie stále? Na uvedenú otázku nie je jednoduchá odpoveď. Ak hovoríme o genotypickom nadaní, je stále a v priebehu života sa nemení. Ak skúmame nadanie fenotypické, to ktoré sa rozvíja a jeho prejavy môžeme pozorovať a ovplyvňovať a teda aj meniť.

Deti, ktoré sa prejavujú ako nadané v detstve, majú veľkú šancu takými aj zostať. Aby sme tú šancu zvýšili, musíme sa im primerane venovať. Nie je pravda, že nadanie nepotrebuje žiadnu

starostlivosť, že sa presadí samé. Musí sa presadiť vlastnou aktivitou, ale k tomu aby sa presadilo, potrebuje podmienky, ktoré si v detstve nevie vytvoriť samé. A neskôr, keď si podmienky vie človek vytvoriť, môže byť neskoro, pretože práve detstvo je vek, ktorý je pre rozvíjanie talentu najdôležitejší. Pretože aj talenty, ktoré sa rozvinú v neskoršom veku, v dospelosti, čerpajú zo základov, ktoré im poskytlo detstvo (Dočkal, 2005).

1.2 Druhy nadania

Z rôznych druhov štruktúr, ktoré sa venujú jednotlivým druhom nadania sa prikláňame k štruktúre V. Dočkala (2005), kde nadanie delí nasledovne, uvádzame len základnú štruktúru:

- pohybové,
  - športové
  - tanečné
- umelecké,
  - hudobné
  - výtvarné
  - literárno-dramatické
- intelektové,
  - jazykové
  - matematické
  - vedecké
  - technické
- praktické,
  - manuálne
  - sociálne

V uvedenej štruktúre neuvádzame podrobnosti a vzájomné súvislosti. Ako sám autor uvádza, schéma takmer nikdy nebude úplná, pretože rôzne typy činnosti sa môžu prelínať. Taktiež treba pripomenúť, že rôzne druhy talentov sa môžu prelínať a navzájom dopĺňať. Aj sám autor priznáva, že v schéme chýba nadanie tvorivé, avšak dodáva, že týka všetkých druhov (Dočkal, 2005).

Našim záujmom je výtvarné nadanie, ktoré patrí medzi umelecké nadanie.

2 ŠTRUKTÚRA DETSKÉHO UMELECKÉHO TALENTU

Všeobecná charakteristika

Umelecké nadanie môžeme charakterizovať ako funkčnú štruktúru osobnosti regulujúcu vykonávanie umeleckých činností. Utvárajú ju tie komponenty predpokladovej a aktivačnej zložky nadania, ktoré sú relevantné umeleckej činnosti. Pojem umelecké nadanie zahŕňa viacero druhov umeleckých talentov a jeho zisťovanie predpokladá stanovenie toho - ktorého druhu. Najvhodnejším spôsobom ako možno postihnúť štruktúru nadania ako regulátor činnosti je štúdium nadaných jedincov, resp. jedincov, ktorí podávajú v sledovanej činnosti mimoriadne úspešné výkony. Našim záujmom sú predovšetkým deti v predškolskom a školskom veku, kde ide o štruktúru detského umeleckého talentu, ktorý sa môže líšiť od štruktúry umeleckého nadania dospelých.

Predpokladová zložka

Inteligencia

Podľa Dočkala je všeobecná inteligencia predpokladom pre umelecký talentu. Hovorí že žiadnu umeleckú činnosť nemožno úspešne vykonávať pre nedostatočnej úrovni intelektových schopností. Jednoznačné stanovenie druhu nadania v detskom veku je obtiažne. Adekvátne rozvinuté intelektové schopnosti umožňujú rozvíjanie umeleckého talentu.

Všeobecné umelecké schopnosti
Termín umelecké schopnosti sa používa najčastejšie pre strešný názov pre vzájomne nezávislé hudobné, výtvarné, literárno-dramatické a ďalšie špeciálne schopnosti.

- schopnosť umeleckého hodnotenia je schopnosť vytvoriť si špeciálny emocionálno-hodnotiaci vzťah k objektom umeleckého stvárnenia, alebo umeleckým dielam. Vytvorený hodnotiaci vzťah sa stáva vnútorným obsahom umeleckého diela alebo jeho prevedenia.
- schopnosť umeleckého vyjadrovania je schopnosť adekvátnou formou vyjadriť alebo stvárniť vnútorný obsah diela, materializovať svoje myšlienkovo-emocionálne bohatstvo formou umeleckého artefaktu a odovzdať ho prijímateľovi.

Obe tieto schopnosti sa spoločne uplatňujú v práci umelca a odlišuj sa od iných druhov činností. Ak o niekom povieme že je umelecky nadaný, musí disponovať oboma schopnosťami.
Naučené postupy môžu tlmiť slobodné vyjadrovanie detí, preto jednostranné rozvíjanie umeleckej techniky nemá na rozvoj umeleckého nadania vplyv a môže byť jeho brzdou.
Zmysel pre rytmus. Týka len hudobného nadania

Aktivačná zložka

- aktivita a nešpecifická motivácia činnosti

úlohou aktivačnej zložky talentu je dodať energiu potrebnú pre vykonávanie činnosti. Výsledky výskumov potvrdzujú význam širokého spektra aktívnych záujmov a všestrannej aktivity dieťaťa ako nešpecifického faktoru v štruktúre nadania. V motivačnej štruktúre umeleckého nadania prevláda vnútorná motivácia nad motiváciou sociálnou.

- umelecké zameranie osobnosti

umelecké zameranie osobnosti je celostnou vlastnosťou, čo zodpovedá celostnému charakteru umenia. Veľký význam sa pripisuje emocionalite – vzťah, ktorý si umelec vytvára ku svetu je predovšetkým emocionálny. Je to aj vzťah hodnotiaci. má predovšetkým smerovú funkciu, vedie jedinca k uprednostňovaniu istého druhu hodnôt a činností a k vytváraniu konkrétnych umeleckých záujmov. Na zachytenie umeleckého zamerania osobnosti nemá psychológia k dispozícii žiadne metódy.

Záujmy
Špeciálnymi charakteristikami aktivačnej zložky nadania sú konkrétne záujmy, ktoré plnia smerovú, zameriavaciu funkciu. Len v spojitosti s aktivitou a vôľovým úsilím sa menia na tzv. aktívne záujmy, ktoré majú veľmi blízko k špecifickým výkonovým potrebám. Dôležitým ukazovateľom vo vzťahu k nadaniu je stabilita záujmov. Iba stabilný záujem vedie k dlhodobejším úspechom v tej ktorej činnosti.

Dynamika predpokladovej a aktivačnej zložky
Rozvoj fyzických i psychických predpokladov nadania je možný len v činnosti. Tú umožňujú aktivačné charakteristiky, ktoré sa tak stávajú dôležitými predpokladmi vývinu talentu i úspešného vykonávania činnosti. Naopak, jednotlivé komponenty predpokladovej zložky môžu zohrávať pri rozvíjaní nadania tiež významnú aktivačnú funkciu. Výsledky výskumov realizovaných Dočkalom dokumentujú tézy o vzájomnej kauzalite motivácie a schopností v priebehu vývinu. Táto kauzalita je podmienená účasťou oboch zložiek nadania na vykonávaní činnosti. Potvrdil sa význam zisťovania oboch zložiek pri identifikácii nadania, to je poznanie úrovne schopností a motivácie.

3 KRITÉRIÁ

Asi najväčším problém sú kritériá, prostredníctvom ktorých by sme mohli konštatovať, že toto dieťa je alebo nie je umelecky nadané.
Otázkam súvisiacim s kritériami sa venovalo už viacero autorov. R. Sternberg vymedzil päť všeobecných kritérií, ktoré je možné použiť aj ako kritériá na rozoznanie umeleckého nadania:

- excelentnosť – chápaná ako potenciál a výkon jedinca, to znamená že konkrétny jedinec je v oblasti umeleckého zobrazovania vynikajúci oproti vrstovníkom,
- vzácnosť – vyskytuje sa v súvislosti s predchádzajúcim. Okrem toho že jedinec vykazuje excelentnú úroveň výtvarného zobrazovania, zároveň je to aj vzácne, teda nevyskytuje sa to bežne v populácii,
- produktivita – posudzuje sa ako výnimočnosť produkovať a vytvárať komplexnejšie diela,
- demonštrovateľnosť – znamená že výnimočnosť musí byť preukázateľná,
- hodnotnosť a užitočnosť – znamená že výnimočné diela sú aj užitočné a zmysluplné.

Kritériami posudzovania a hodnotenia faktorov vo výtvarnom prejave detí a mládeže sa zaoberali niektorí autori.
Kritériá hodnotenia sú predmetom rôznych diskusií odborníkov. V súčasnosti existujú najmenej dva názory. Jeden preferuje hodnotenie pomocou štandardizovaných testov a druhý preferuje vytvoriť úplne novú koncepciu hodnotenia, takú ktorá by rešpektovala špecifická výtvarnej tvorby dieťaťa.
Predmetom hodnotenia a diagnostikovania môže byť jednak výsledný produkt, teda detská výtvarná tvorba, alebo proces výtvarnej činnosti.
Navrhované kritériá sú orientačné, dajú sa rozšíriť, prípadne upraviť, podľa toho, ako je učiteľ odborne schopný s nimi pracovať.
Kritériá hodnotenia detského výtvarného prejavu (Valachová, 2008, 2010)

- FLUENCIA: predstavuje množstvo predmetov, vecí, detailov a vyjadrených prvkov na detskom výtvore.
- FLEXIBILITA: obsahuje efektivitu vystihnutia témy a opakovanie znakov výtvarného zobrazenia
- ORIGINALITA: predstavuje použitie neobvyklých prvkov, farieb, výraz.
- KOMPOZÍCIA: predstavuje rozmiestnenie výrazových prvkov vo formáte, funkčne zaplnený priestor detskej výtvarnej tvorby.
- FAREBNOSŤ: predstavuje výber a použitie farieb nápadito, harmonicky a vyvážene.
- VEDENIE LÍNII: kvalita línie vedená ľahko, línia je jasná, hladká a primeraná technike, je zrejmý koordinovaný grafomotorický pohyb.
- Zobrazenie postáv: obsahuje všetky časti tela, správny počet prstov nie však vidlicovitého charakteru, je bohatá na detaily, má aspoň nejakú súčasť odevu, zobrazené sú všetky postavy a ich pomer veľkostí je primeraný skutočnosti

V niektorých prípadoch je možné doplniť aj perspektívu a jej počiatky a ďalšie kritérium ako využitie svetla a tieňa.
Za negatíva v detskom výtvarnom prejave považujeme:

- nefunkčné naklonenie zobrazenia,
- negovanie výtvarného prejavu – škrtanie, gumovanie,
- negativizmus – odmietanie výtvarnej činnosti.

V procese hodnotenia dokáže učiteľ sledovať nasledujúce aspekty:

- Priebeh výtvarnej činnosti detí a ich výtvarný prejav. Konkrétne vplyvy edukácie na výtvarné dispozície detí ako je výtvarná citlivosť, výtvarná predstavivosť a fantázia a samozrejme výtvarné myslenie.

- Správanie sa detí, ktoré súvisí s hodnotením, výtvarnou tvorivosťou a výtvarným vnímaním. Prejavom je vplyv výchovy na všeobecne tvorivé, etické a intelektové dispozície detí.
- Vlastné konanie na edukačných aktivitách. Prejavuje sa tu učiteľovo chápanie vyučovania a jeho psychodidaktické dispozície. Učiteľovo hodnotenie, ktoré je intuitívne ma v podstate komplexný, teda celkový charakter. Ide o okamžitú reakciu, posúdenie a o bezprostredné vyjadrenie pocitu a intuície z danej výtvarnej práce ako komplexu, vo forme verbálnej výpovede.

3.1 Diagnostický význam výtvarného prejavu

Z detskej výtvarnej tvorby možno vyčítať veľa informácií o jej tvorcovi. Úlohou učiteľa je predovšetkým pozorovať dieťa pri tvorbe a potom sa pokúsiť hodnotiť detský výtvarný prejav ako produkt.

Banaš et al. (1989) uvádzajú tieto kritéria:

- *Primeranosť* výtvarného veku dieťaťa. Učiteľ si všíma, či je prejav na vyššej alebo nižšej úrovni v porovnaní s úrovňou, aká zodpovedá danému vývinovému obdobiu, prípadne veku dieťaťa.
- *Téma – námet* výtvarného produktu. Podľa nej možno identifikovať záujmy, postoje, emotívne vzťahy k rodičom atď. Agresívne deti rady zobrazujú konfliktné situácie, pokojné naopak statické deje bez citového náboja.
- *Kvalita línie*. Podľa jej tvorby možno posúdiť duševné vlastnosti dieťaťa. Zdravé deti tvoria s líniou ako s výrazovým prostriedkom. Jemné línie, často prerušované sú prejavom depresívnych a anxióznych porúch. Línie citovo kreslené sú známkou citlivej vnímavosti. Hrubé línie sa vyskytujú u agresívnych a prudko reagujúcich detí.
- *Nadmerné opravovanie, gumovanie*, zosilňovanie a tieňovanie je výrazom konfliktných momentov v osobnosti.
- *Využitie plochy papiera*. Podľa toho, ako dieťa rozloží obrazové prvky na ploche papiera, aké sú veľké a ako sú na seba nadviazané, možno posudzovať povahové vlastnosti. Napríklad depresívne deti väčšinou nevyužívajú celú plochu papiera, ale úzkostlivo umiestnia kresbu len v určitej , menšej časti. Naproti tomu sebavedomé deti pohotovo vyplnia celý papier, niekedy im ani jeho plocha nestačí.
- *Statická alebo dynamická figurálna kompozícia*. Statická kompozícia signalizuje neurotické deti. Prirodzene dynamická kompozícia je typická pre zdravé deti.
- *Farebná kompozícia*. Výber farieb tónov môže určovať duševné poruchy. Neurotické deti najčastejšie tvoria s tmavými a studenými farbami. Agresívne deti obľubujú teplé farby, najmä červenú. Úzkostlivé deti neradi pracujú s farbami a deti s ľahkým mozgovým poškodením volia nevhodné a neprimerané sfarbenie (napr. len tmavé odtiene, alebo hotový výtvor pretrú tmavou farbou).
- *Časové zvládnutie výtvarnej tvorby*. Rýchlo zvyknú výtvarne tvoriť deti nestabilné – nestále, ich výtvarný produkt je nekvalitná. Pomaly tvoria deti s pomalou reakciou a pomalými myšlienkovými pochodmi, deti nerozhodné.

Neoddeliteľnou zložkou diagnostiky výtvarného prejavu je rozhovor s dieťaťom. Počas neho sa máme možnosť dozvedieť aj to, čo sa dieťaťu kresbovo nepodarilo, presnejšie sa dozvedieť a pochopiť súvislosti, vzťahy a myšlienkové pochody dieťaťa. Do úvahy musíme brať ale celú škálu činiteľov, ktoré ovplyvňujú osobnosť dieťaťa, či už je to rodinné prostredie, aktuálna nálada, súčasný zdravotný stav a podobne.

Rozhovor o kresbe

Dôležité informácie o výtvarnom produkte získame *rozhovorom po ukončení výtvarnej tvorby.* Medzi deťmi sú rozdiely v tom, ako sa stavajú k výsledku výtvarného prejavu a tieto informácie doplňujú analýzu a hodnotenie detského výtvarného prejavu.

Po skončení tvorby sa môže stať, že dieťa nechce hovoriť o tom, čo zobrazilo. Nie je vhodné naliehať, aby niečo povedalo. V takomto prípade je lepšie, ak hovoríme my o tom, čo vidíme na detskom prejave a pýtame sa dieťaťa, či je to tak, ale je tu nebezpečenstvo, že nasugerujeme dieťaťu našu interpretáciu výtvarnej tvorby.

Na druhej strane sa môže stať, že dieťa ešte neukončilo výtvarnú tvorbu a už začne vysvetľovať, čo zobrazilo. Je vhodné pýtať sa na to, kto to je, koľko má rokov, čo robí, aký je, čo si myslí, napr. pri kresbe stromu na to, aký je to strom, kde rastie, aká je jeho história.

Otázkami typu, čo by chcelo zobraziť lepšie alebo inak, sa môžeme dozvedieť niečo o osobných ašpiráciách dieťaťa.

Rozhovor by sme nemali vynechať ani pri metódach odkresľovania podľa predlohy. Z takéhoto rozhovoru sa môžeme dozvedieť, či kresba bola pre dieťa náročná, ako dieťa vnímalo proces kreslenia. Pri takomto type kreslenia sa môžeme dieťaťa pýtať, ktorá figúra bola pre dieťa najťažšia. Prostredníctvom týchto otázok môžeme urobiť určitú korekciu výsledku. Napríklad, ak je niektorá figúra alebo obrazec nakreslený nepresne, a pritom nie je náročný, je možné, že išlo zo strany dieťaťa skôr o istú nedbanlivosť alebo podceňovanie úlohy než o nižšiu grafomotorickú schopnosť.

Ak by sme chceli uskutočniť korekciu výtvarného výkonu ako výsledku diagnostickej metódy, je tiež vhodné hovoriť na danú tému aj s rodičmi dieťaťa. Ide o nepriame hodnotenie výtvarného prejavu dieťaťa rodičmi alebo skôr o nepriame informácie o vzťahu dieťaťa k výtvarným činnostiam, o jeho motivácii pre činnosť. Je dôležité zaujímať sa o to, či sa dieťa výtvarne vyjadruje rado, ako u neho prebiehal vývoj detského výtvarného prejavu, obzvlášť v predškolskom veku, aké témy najčastejšie zobrazuje.

Chyby a nedostatky pri využívaní techník v diagnostike detského výtvarného prejavu:

- Ak zvolíme nesprávnu výtvarnú techniku, môžeme dieťa demotivovať. Takto získané údaje z výtvarného výtvoru a zistené výsledky nemusia byť validné. Výtvarnú techniku je vhodné voliť vzhľadom k obsahu zobrazenia, napr. ak deti zobrazujú svoju rodinu, je vhodné voliť výtvarné techniky, kde bude môcť dieťa zobraziť aj detaily napr. kolorovanú kresbu. Nevhodnou výtvarnou technikou pri tematickom zobrazení rodiny je maľba temperovými farbami, pretože neumožňujú dieťaťu zobraziť dôležité detaily.
- Ak nebudeme dostatočne dbať na motiváciu počas výtvarnej tvorby, môžeme tým výsledok znehodnotiť, zvlášť u detí, ktoré sú neisté, bojazlivé, príliš zamerané na výkon, ale aj u detí, ktoré kreslia rýchlo a nedbanlivo. Motiváciu odporúčame realizovať emocionálnu, aby bola pre deti podnetná.
- Skreslenie výsledkov diagnostickej techniky detského výtvarného prejavu môže nastať v prípade, ak použijeme nevhodný výtvarný nástroj, materiál, nevhodné inštrukcie, teda ukazovatele, ktoré sú neštandardnými ukazovateľmi k výtvarnému zobrazeniu.
- Počas kreslenia môžeme deti stresovať, ak kladieme nesprávny dôraz na rýchlosť a presnosť výtvarného zobrazenia. Proces výtvarnej torby by mal prebiehať v kľudnej a príjemnej atmosfére, a čím je dieťa mladšie, tým viac by výtvarná tvorba mala byť hrou a zaujímavou úlohou pre deti.
- Počas výtvarnej tvorby sa neodporúča hodnotiť tvorbu detí. Je vhodné deti povzbudzovať v prípade, keď sa nám zdá, že deťom sa výtvarná úloha nedarí.
- Je vhodné, ak sledujeme proces výtvarnej tvorby dieťaťa. Inak sa ochudobňujeme o dôležité informácie o dieťati.

- V prípade, že po výtvarnej tvorbe nenasleduje explorácia, len veľmi ťažko budeme vedieť odlíšiť nedbanlivé výtvarné zobrazenie od nevydareného zobrazenia z dôvodu ťažkej úlohy, alebo aktuálne výsledky od nacvičeného zobrazenia.
- Výtvarnú tvorbu môžeme nesprávne interpretovať v prípade, ak príliš zovšeobecňujeme dosiahnuté výsledky, alebo ak ju berieme ako povinnú výbavu portfólia každého dieťaťa.
- Projektívny prístup je vhodné uprednostniť pred inými hľadiskami. Kvalitatívne hodnotenie má výpovednejšiu hodnotu.
- Výsledky, ktoré získame pomocou diagnostických techník výtvarnej tvorby, možno považovať za objektívne. Ide však len o hypotézu, ktorú je vhodné doplniť aj o ostatné informácie o dieťati a overiť prostredníctvom ďalších metód.

Základná otázka, či existuje výtvarné nadanie je v texte zodpovedaná. Určite existuje. Na základe štúdia odbornej literatúry aj vlastných skúseností vieme povedať že existuje. Avšak v súčasnosti je problematika výtvarného nadania preskúmaná najmenej z ostatných oblastí a druhov nadania. Neviem presne odpovedať na to, prečo sa výtvarnému nadaniu nevenuje až taká pozornosť akú by si, podľa nás, zaslúžilo. Nemáme k dispozícii relevantné výskumy, ktoré by nám objasnili štruktúru, diagnostiku a možnosti rozvoja výtvarného nadania. Sú k dispozícii len všeobecné princípy, bez špecifického zamerania na výtvarné nadanie a to považujeme za nedostatočné.

4 ZÁVER

Hrdíme sa štruktúrou základných umeleckých škôl, ich množstvom, tradíciou, obsahom, ale samotné prijímanie detí na výtvarné odbory je len na základe záujmu a nie posudzovania úrovne výtvarného nadania. Vlastne pedagógovia ani nemajú na výber, okrem tradičných finančných dôvodov je to aj odborný dôvod, nemajú k dispozícii žiadne nástroje na posudzovanie, je to skôr na úrovni subjektívnych názorov a dojmov. Na základe viacerých výskumov poznáme štruktúru hudobného, pohybového a niektorých ďalších druhov nadania. Avšak výtvarné nadanie je neprebádané, bez realizovaných relevantných výskumov. Takže vieme presne povedať že výtvarné nadanie určite existuje, ale nepoznáme presne jeho štruktúru, vlastnosti a možnosti diagnostiky a rozvíjania a to považujeme za problém a výzvu zároveň.

Príspevok vznik v rámci riešenia výskumného projektu VEGA1/0179/17 Výskum identifikátorov výtvarného nadania a talentu detí a mládeže.

Použitá literatura

1. BANAŠ, J., GERÓ, Š., JUSKO, A.,ŠEFRANKOVÁ, E. *Didaktika výtvarnej výchovy*. 2. vyd. Bratislava: SPN, 1989. ISBN 80-08-00013-9
2. DOČKAL, V. *Kognitívne a motivačné aspekty umeleckého nadania detí školského veku*. Kandidátska dizertačná práca. Výskumný ústav detskej psychológie a patopsychológie, Bratislave 1983.
3. DOČKAL, V. *Zaměřeno na talenty, aneb nadání má každý*. Praha : Nakladatelství Lidové noviny, 2005. ISBN 80-7106-840-3.
4. CZIIKSHENMIHALY, M. *Society, culture, person: a systems view of creativity*. In. STERNBERG, R. J. (Ed.): The nature of Creativity. New York : Cambridge University Press, 1988.
5. GARDNER, H. *Dimenze myšlení*. Praha : Portál, 1999. ISBN 8071782793.
6. HŘÍBKOVÁ, L. *Nadání a nadaní*. Praha : Grada, 2009. ISBN 978-80-247-1998-6.

7. KOVÁČOVÁ, B. – GUILLAUME, M. *Art vo vzdelávaní.* 1. vyd. Pedagogická fakulta Trnavská univerzita v Trnave. 2010. 160 s. ISBN 978 -80-8082-401-3. Dostupné na: http://pdfweb.truni.sk/elskripta/guillaume-kovacova-skripta.pdf.
8. LAZNIBATOVÁ, J. *Nadané dieťa jeho vývin, vzdelávanie a podporovanie*. Bratislava : Iris, 2007. ISBN 80-89018-53-X.
9. PIAGET, J., INHELDEROVÁ, B. *Psychológia dieťaťa*. Praha: Portál, s.r.o, 1997. ISBN 80-7178-146-0
10. STERNBERG, R. J. *Beyon IQ: A triarchic theory of humen intelligence*. New York : Cambridge University Press, 1985.
11. VALACHOVÁ, D. *Výtvarný prejav detí z multikultúrneho prostredia*. Bratislava : Psychodiagnostika, 2005, ISBN 80-88714-02-8.
12. VALACHOVÁ, D. – PAVLIKÁNOVÁ, M. – KVASNICOVÁ, H. *Výtvarné nadanie u jedincov v inkluzívnom prostredí*. Bratislava : Iris, 2013. ISBN 978-80-89238-87-3. s.141-151 [CD-ROM].
13. VALACHOVÁ D. *Výtvarná edukácia v predprimárnom vzdelávaní a mimoškolskej činnosti.* Bratislava Univerzita Komenského, 2010, ISBN 978-80-223-2778-7

Kontaktné údaje

doc. PaedDr. Daniela Valachová, PhD.
Katedra výtvarnej kultúry
Univerzita Mateja Bela v Banskej Bystrici, Pedagogická fakulta
Ružová 19, 974 01 Banská Bystrica
Slovenská republika
e- mail: daniela.valachova@umb.sk

TEORETICKÁ REFLEXIA POJMU KYBERPRIESTOR, JEHO CHARAKTERISTIKY A ŠPECIFIKÁ

THEORETICAL REFLECTION OF THE CONCEPT OF CYBERSPACE, ITS CHARACTERISTICS AND SPECIFICS

Vladimíra Hladíková

Abstrakt

Príspevok sa zaoberá reflexiou termínu kyberpriestor a má charakter teoretickej štúdie. V úvode je čiastočne vymedzená aj problematika nových médií, ktoré nepochybne súvisia s predkladanou reflexiou a je možné ich považovať za isté východiská k porozumeniu skúmanej témy. Príspevok predkladá definičné rámce kyberpriestoru podľa autorov domácej aj zahraničnej proveniencie, ako aj vymedzenie istých charakteristík a špecifických aspektov kyberpriestoru najmä vo filozofických a antropologických kontextoch.

Kľúčové slová: *nové médiá, informačno-komunikačné technológie, internet, kyberpriestor, špecifiká.*

Abstract

The paper deals with the reflection of the term cyberspace and has the character of a theoretical study. In the introduction, the issue of new media is also defined, which is undoubtedly related to the presented reflection and can be considered as some basis for understanding the submitted topic. The paper presents the definitive frameworks of the cyberspace by authors of both domestic and foreign origin, as well as the definition of certain characteristics and specific aspects of cyberspace, especially in philosophical and anthropological contexts.

Keywords: *new media, information and communication technologies, internet, cyberspace, specifics*

1 NOVÉ MÉDIÁ

V kontexte informačnej spoločnosti, komunikácie a rozmachu informačno-komunikačných a digitálnych technológií (IKT) sa do popredia dostávajú predovšetkým nové médiá. Slovné spojenie nové médiá sa v posledných desaťročiach, súbežne s masovým šírením osobných počítačov, internetu a ďalších informačno-komunikačných technológií, ktoré neustále intenzívne prenikajú do každodenného života veľkej časti obyvateľov hospodársky vyspelého sveta, pevne zabývalo vo verejnom i akademickom diskurze. Kľúčom k masovému rozšíreniu a presadeniu sa digitálnych médií a digitálnych technológií bol najmä vznik osobného mikroprocesorového počítača na konci 70. rokov 20. storočia, otvorenie počítačových sietí univerzitám a neskôr verejnosti počas 70. a 80. rokov a prienik digitálnych technológií do sfér obchodu, výroby, dopravy a kultúrneho priemyslu v tej dobe. Od počiatku 90. rokov sa v súvislosti s masívnym nástupom Internetu (celosvetovej počítačovej siete, založenej na technologickom modeli ARPA Netu) a ďalšou expanziou digitálnych technológií hovorí o tzv. digitálnej revolúcii. V tejto súvislosti možno spomenúť napríklad premenu webu a mobilných telefónov medzi rokmi 2000 -2015. Od statických webov, anonymných chatov a internetových kaviarní sa internet behom pár rokov posunul smerom k online sociálnym sieťam, aplikáciám a dynamickým webom. Mobilný telefón sa zase z jednoduchého prístroja umožňujúceho telefonovať a zasielať textové správy premenil v komplexný prístroj

s dotykovým rozhraním, prednou i zadnou kamerou, trvalým prístupom k internetovým službám, ktorý je vodeodolný či takmer nerozbitný a dokáže viac-menej plne nahradiť i osobné počítače. Premena v technologickej rovine pritom bola sprevádzaná najmä razantnými zmenami vo formách a možnostiach používania týchto médií.

K zasadeniu nových médií do širšieho kontextu môže vhodne poslúžiť jedna zo základných typológií médií, s ktorou mediálne štúdiá neustále pracujú. Túto typológiu rozlišujúcu primárne, sekundárne, terciárne a kvartérne médiá sformulovali okrem iných napríklad aj českí mediológovia J. Volek, J. Jirák a B.Köpplová (2006, s. 10). Typológiu možno považovať za zaujímavú najmä preto, že zahŕňa aj iné, než len čisto technologické aspekty mediálnej komunikácie. Podľa tejto typológie sa médiá delia na:

- Primárne – tvoria principiálne základy medziľudskej komunikácie, patrí sem jazyk, reč a nonverbálne formy komunikácie.
- Sekundárne – slúžia prevažne k interpersonálnej komunikácii a dovoľujú komunikát distribuovať cez časové a priestorové bariéry. Zaraďujeme sem písmo, kníhtlač, ale i médiá ako telegraf či telefón.
- Terciárne – najčastejšie označované ako masové médiá, dovoľujú komunikátorovi oslovovať veľké skupiny recipientov (masové publikum). Patrí sem masová tlač, televízia a rozhlas, teda médiá, ktoré zohrávali kľúčovú úlohu pri utváraní modernej spoločnosti. Je tiež dôležité spomenúť, že terciárne médiá pre svoje fungovanie vyžadujú rozsiahle organizačné zázemie a distribučnú infraštruktúru, ktorá dovoľuje šírenie komunikátov v masovom rozsahu.
- Kvartérne médiá – hovoríme im aj nové, digitálne či sieťové médiá – ide o pomerne rôznorodú skupinu mediálnych technológií zdieľajúcich rovnakú základnú technologickú platformu, ktorá je založená na digitálnom kódovaní dát a obsahov. Táto technologická platforma umožňuje ich vzájomnú konvergenciu a prepájanie, pretože okrem iného dovoľuje i zdieľanie distribučných infraštruktúr.

Čo si pod pojmom nové médiá možno predstaviť? Nové médiá tvoria veľmi širokú a rôznorodú skupinu z hľadiska funkcie, prenášaných oznámení a informácií i spôsobov používania. Môžeme sem zaradiť okrem mediálnych technológií (osobné počítače, tablety a pod.) aj smartfóny a ich mobilné aplikácie, tiež počítačové siete (predovšetkým internet) či jednotlivé webové služby – sociálne siete, blogy, digitálne hry, elektronickú poštu, webové sídla či digitálnu televíziu. J. Macek (dostupné na:http://rpm.fss.muni.cz/Revue/Heslar/nova_media.htm) hovorí, že označenie nové média, resp. presnejšie – digitálne média sa viaže k platforme mediálnych technológií, založených na digitálnom, teda numerickom spracovaní dát. V širšom zmysle slova koncept digitálnych médií zahŕňa celé pole výpočtových, počítačových technológií a s nimi spojených dátových obsahov, v užšom zmysle slova sa vzťahuje len k počítačovej, teda digitálnou technológiou mediovanej komunikácii.

Okrem označenia nové, resp. digitálne médiá sa v odbornej literatúre často stretneme aj so synonymami ako napr. interaktívne, sieťové, hypermédiá, supermédiá či média 2.0. P. Fabuš (2006, s. 20) v tomto kontexte dodáva, že hranica medzi novými a „starými“ médiami nie je úplne jasná. Je to z dôvodu, že oba typy médií sa vzájomne ovplyvňujú, a preto je ťažké jednoznačne vymedziť rozhranie medzi nimi. Odlíšiť ich výhradne na základe prítomnosti či neprítomnosti digitálnej technológie nie je možné. Môžeme však poukázať na atribúty nových médií, ktoré staré médiá neobsahovali a súčasne identifikovať v nových médiách „to staré“. Pod týmito atribútmi môžeme mať na mysli napríklad časopriestorovú dimenziu. Zatiaľ čo printové média majú dimenziu priestoru a podobne i rozhlas a televízia dimenziu času, nové média sú od nich odpútané. Sú neustále prístupné (nie sú teda obmedzené časom) a môžu byť

ľubovoľne rozsiahle. Dôležitým znakom nových médií je tiež interaktivita, teda možnosť ihneď reagovať alebo dokonca ovplyvňovať obsah. I. Reifová (2004, s. 135) pri definovaní nových médií hovorí, že majú jednu špecifickú vlastnosť, ktorú u tradičných médií vôbec nenájdeme – možnosť automatizovaného spracovania ich obsahov. Okrem toho sa im pripisujú aj ďalšie vlastnosti ako napr. multimedialita, sieťovosť, globálna dostupnosť, demokratickosť a pod., prostredníctvom ktorých zásadným spôsobom prispievajú k zmenám sociálnej a mediálnej reality. Nedajú sa však vymedziť výhradne na základe uvedených charakteristík – tvorcovia môžu ľubovoľne nastaviť jeho vlastnosti, niektoré potlačiť a iné akcentovať. Podobné stanovisko uvádza aj publikácia *Úvod do nových médií*, kde autor píše, že médiá nie je možné definovať len prostredníctvom ich technologických vlastností, ale je dôležité súčasne porozumieť tomu, ako, kým a k čomu sú používané a v akých širších sociálnych, politických a ekonomických kontextoch svojim používateľov slúžia (Macek, 2011, s. 18). Je dôležité upozorniť, že tempo mediálnych inovácií nepoľavuje a neustále prebiehajú ďalšie technologické pokroky v oblasti vedy, techniky i komunikácie. Digitalizáciou sa tiež vytvárajú predpoklady k tesnému prepojeniu všetkých médií a ku kvalitatívne novému posunu v utváraní informačnej spoločnosti.

2 KYBERPRIESTOR

Ak sme pri popisovaní súčasného stavu spoločnosti hovorili o jej sieťovom charaktere a implementácii nových médií do nej, dostávame sa k médiu, ktoré dramaticky a komplexne ovplyvnilo, transformovalo a zasiahlo dovtedajšie predstavy o živote, čase, priestore či celej spoločnosti. Ide o médium internetu a možno ho s istotou považovať za médium revolučné vo všetkých sférach života. V rámci informačných technológií je to práve internet, ktorý sa v súčasnosti neobmedzuje len na počítače, ale je už súčasťou aj iných technológií, napr. smartfónov, tabletov, ipadov a podobne. Možno teda skonštatovať, že komunikácia prostredníctvom internetu asi najlepšie vystihuje najväčšiu zmenu v súčasnej kultúre. Vznik a vývoj internetu priniesol so sebou súčasne i vytvorenie nového komunikačného priestoru, ktorý sa nazýva aj kyberpriestor. Ide o prostredie, v ktorom nielen komunikujeme, ale i pracujeme, zabávame sa, nakupujeme, vzdelávame sa. Nejde len o obyčajný „nástroj“ nového spôsobu našej komunikácie, ale dimenziu, ktorá sa stáva absolútnou súčasťou našej existencie. Civilizačná schopnosť tvoriť informácie sa natoľko zdokonalila, že prostredníctvom nich človek vytvára umelú (virtuálnu) realitu. Vedľa prirodzeného časopriestoru vzniká ako produkt ľudskej civilizácie kyberpriestor. Človek svojou telesnou schránkou existuje v prirodzenom svete a svojim vedomím vstupuje do kyberpriestoru. Kým v novoveku a ére expanzie masových médií komunikácia fungovala v spoločenskom priestore zvanom megapolis, dnes sa realizuje a presúva do nového „technického mesta“ - tzv. technopolis. Ako uvádza P. Sak (2007, s.. 29): „*Existencia človeka sa v digitálnej ére realizuje v prirodzenom svete, na hranici virtuálnej reality a prirodzeného sveta a v kyberpriestore.*“

Jednotne vymedziť kyberpriestor je pomerne zložité a snahy o jeho definíciu variujú od autora k autorovi. Faktom je, že termín kyberpriestor (ang. cyber-space) po prvýkrát použil kanadský spisovateľ William Ford Gibson, zakladateľ tzv. cyberpunku, podžánru science-fiction, vo svojom románe Neuromancer v roku 1984. Gibson pod pojmom „kyberpriestor" rozumel konsenzuálnu dátovú halucináciu, vizualizovanú v podobe imaginárneho priestoru, tvoreného počítačovo spracovanými dátami a prístupného len vedomiu (a nie fyzickej telesnosti) užívateľov (Škop, 2005, s. 1158). Pojem sa tak javí ako protipól skutočnému priestoru, ktorý je naopak založený na hmotnej existencii. Z etymologického hľadiska možno povedať, že ide o kybernetický priestor, ktorý nie je totožný s trojdimenzionálnym fyzikálnym priestorom ale prostredníctvom rôznych vizuálnych, akustických či hmatových simulácií je len paralelou

k skutočnému priestoru. Kyberpriestor je tvorený najmä komunikačnými technológiami, v rámci ktorých vyniká práve internet. Základnou stavebnou jednotkou kyberpriestoru je však informácia. P. Sak (2007, s. 29) odkazuje na amerického esejistu J.P.Barlowa, ktorý v diele *Deklarácia nezávislosti kyberpriestoru* (1996) v tomto kontexte hovorí: „*Náš svet je nikde a všade, ale nie je to priestor, v ktorom žijú telá. Budujeme svet, do ktorého môže vstúpiť každý – bez privilégií či predsudkov, či už rasových, ekonomických, vojenských či geografických*." Antropológ D. Hakken v nadväznosti na Barlowa charakterizuje kyberpriestor ako sociálnu arénu, do ktorej vstupujú všetci sociálni aktéri, ktorí používajú k vzájomnej sociálnej interakcii pokročilé informačné technológie. Termín kyberpriestor tiež ďalej odkazuje na všetky potenciálne životné štýly zviazané s kultúrnym bytím vytváraným cez tieto informačné technológie (Vašutová, 2010, s. 14). Ako uvádza S. Gálik (2014, s. 9), s najdokonalejším výrazom kyberpriestoru sa stretávame v súčasných moderných médiách, predovšetkým na internete, pomocou ktorého môžeme komunikovať vizuálne i akusticky.

Je tiež potrebné kyberpriestor diferencovať od trojdimenzionálneho priestoru, ale i od iných druhov priestorov, napr. spoločenský, ekonomický či kultúrny priestor. Samostatných definícií kyberpriestoru je naozaj veľa, napríklad podľa medzinárodného Centra pre kybernetickú obranu pôsobiaceho v NATO je kyberpriestor časovo závislý súbor prepojených informačných systémov a ľudských používateľov, ktorí interagujú s týmito systémami (dostupné na:https://ccdcoe.org/multimedia/cyberspace-definition-and-implications.html). Zaujímavý pohľad prinášajú aj estónski teoretici R.Ottis a P.Lorents (dostupné na: https://ccdcoe.org/multimedia/cyberspace-definition-and-implications.html), ktorí popisujú kyberpriestor a čas v ňom strávený ako „*súhrn udalostí, ktoré sa týkajú vzťahov medzi ľuďmi a počítačmi, medzi ľuďmi prostredníctvom počítačov a medzi počítačmi samotnými*." Francúzsky filozof Pierre Lévy (2000, s. 83) definuje kyberpriestor ako hmotnú infraštruktúru digitálnej komunikácie, nesmierne množstvo informácií v sieti, rovnako i osoby, ktoré ich používajú, sťahujú, zdieľajú a zásobujú. Podnetný názor zastáva i V. Jirovský (2007, s. 16), ktorý kyberpriestor definoval ako priestor, kam „*sa prenášajú všetky rysy súčasnej spoločnosti, ale život v kyberpriestore si formuluje svoje vlastné pravidlá, ktoré sa často vymykajú prirodzenému poriadku, v ktorom ľudské spoločenstvo žilo po storočia*." V kontexte nosnej témy našej práce môžeme súhlasiť s autorom i v upozornení, že tento nový virtuálny spôsob existencie prináša i isté nové či modifikované nebezpečenstvá či formy správania, s ktorými sa spoločnosť musí vysporiadať.

Kyberpriestor možno považovať za produkt aktívneho spojenia nových informačných a komunikačných technológií, resp. nových médií a človeka a je úplne novým prvkom v ľudskej histórii. Je teda zrejmé, že z nových aktivít človeka na báze týchto technológií vznikajú aj nové produkty, fenomény, vzorce správania, myslenia a konania, ktoré môžu mať až systémový charakter. P. Rankov (2006, s. 124) tiež hovorí, že internet a s ním i kyberpriestor priniesol významnú zmenu v povahe sociálnej komunikácie. Prostredníctvom svojej ponuky „elektronickej" komunikácie umožňuje nové možnosti komunikácie na rôzne spôsoby (od komunikácie s jedným až po komunikáciu s viacerými používateľmi súčasne). S. Gáliková-Tolnaiová (2014, s. 30) dodáva, že internet ponúka široké možnosti uplatnenia, že jeho vplyv má rôzne dimenzie a tieto skutočnosti ho stavajú do roly významného sociálneho a kultúrneho činiteľa v súčasnej spoločnosti.

Kyberpriestor sa v súčasnosti pre väčšinu z nás stáva druhým domovom, niekedy dokonca i lepším a krajším než reálny, fyzický domov. Niektorí teoretici (napr. G. Sartori) ho spolu s internetom dokonca popisujú ako novú antropogenézu človeka. V prípade, že sa do kyberpriestoru premieta značná časť nášho života, naše sny, predstavy, myšlienky,

komunikácia či fantázia, môžeme s istotou skonštatovať, že sa stáva extenziou nášho bytia a života. Zaujímavým je i teória D. Clarka (2010, s. 1), ktorý o kyberpriestore hovorí ako o „*súbore výpočtových zariadení spojených cez sieť, v ktorom je elektronická informácia uložená, využívaná a zaberá komunikačný priestor.*“ Ide v ňom o manipuláciu a exploatáciu informácií, facilitáciu a rozširovanie komunikácie medzi ľuďmi a zároveň interakcie ľudí a informácií. K lepšiemu porozumeniu kybepriestoru ponúka Clark aj náhľad do jeho vnútornej štruktúry. Podľa autora existujú štyri hierarchicky usporiadané úrovne kybepriestoru:

- Fyzikálna – zakladá sa na fyzikálnych zariadeniach, ktoré sú navzájom priestorovo poprepájané (počítače, senzory, servery, vysielače, internet, siete a iné komunikačné kanály). Komunikácia medzi týmito zariadeniami prebieha cez káble, optické vlákna či bezdrôtovo – vlnením.
- Logická – predstavuje kontinuálnu a rapídnu evolúciu nových schopností či potenciálov a služieb založených na tvorbe a kombinácii nových logických konštruktov. Kyberpriestor na logickej úrovni je teda sériou platforiem, na každej je postavená nová schopnosť, ktorá sa stáva platformou pre ďalšiu inováciu. Je veľmi plastický a môže byť opísaný ako rekurzívny. Tieto platformy sa môžu líšiť, ale zdieľajú spoločné črty a vlastnosti, ktoré sú základom pre ďalšiu platformu nad nimi.
- Informačná – v nej informácie naberajú rôzne formy (napr. www stránky, videá, hudba), tvoria sa aj informácie o informáciách (meta-dáta) alebo informácie, ktoré vyhľadávajú. Clark upozorňuje, že charakter informácií v kyberpriestore sa zmenil, keď počítače začali pracovať so skladbami dát a boli schopné prepájať sa s inými počítačmi.
- Ľudská – ide o najvyššiu úroveň kyberpriestoru. Ľudia však nie sú len pasívni používatelia kyberpriestoru, ale formujú a definujú jeho charakter prostredníctvom spôsobov, ktorými ho využívajú a ktorými sa aktívne podieľajú na jeho obsahoch.

Možno teda skonštatovať, že kyberpriestor je logicky a hierarchicky usporiadaný systém uvedených technicko-sémantických vrstiev, ktoré sú vzájomne poprepájané a dominujú v ňom informácie. V konečnom dôsledku je však kyberpriestor pre ľudí a je nimi i konštruovaný. Z tohto hľadiska je preto možné považovať práve ľudí za jeho najdôležitejší komponent.

Aké má kyberpriestor vlastnosti? Z filozofického hľadiska toto prostredie môžeme charakterizovať ako „nepriestorový priestor“, lebo v ňom neplatia fyzikálny trojdimenzionálny priestor ani zákony. Za priestor ho považujeme skôr len vo vizuálnom, príp. audiovizuálnom zmysle. V porovnaní s mentálnym priestorom človeka a jeho predstavami a myšlienkami sa odlišuje tým, že zatiaľ čo mentálny ľudský priestor má prirodzený, biologický základ, podstata a základ kyberpriestoru sú na technologickej báze. Zaujímavá je aj rýchlosť komunikácie, ktorá je pre bežných používateľov viac menej bez čakania a okamžitá. Absentujú tiež oporné fyzické body pre počítanie pohybov, čo je podmienka merania času. Udalosti v kyberpriestore sú paralelné skôr k snom, v ktorých čas nevieme počítať. Rýchlosť komunikácie a absencia fyzikálneho priestoru v kyberpriestore vyčleňuje lineárny, sukcesívny čas. V kyberpriestore sa dôsledkom spomínaných zmien čas stáva okamihovým, súčasným, simultánnym a rozpadá sa do mozaiky súčasných udalostí (napr. pri surfovaní na internete). Súhlasíme preto v kontexte vymedzenia kyberpriestoru s konštatovaním uznávaného slovenského filozofa S. Gálika (2014, s. 16), že „*čas a priestor predstavujú dve základné koordináty nášho života a ich marginalizácia alebo vyradenie môže mať za následok existenciálnu zmenu človeka.*“ Je tiež potrebné upozorniť, že kategórie priestoru a najmä času už nemajú takú hodnotu ako v minulosti. Napriek tomu, že všetko sa zrýchľuje a súčasná spoločnosť trpí chronickým nedostatkom času, čas stále viac a viac zabíjame rolovaním displejov smartfónov, surfovaním na internete či prázdnym chatovaním.

P. Sak (2007, s. 32) v súvislosti so vznikom kyberpriestoru a migráciou človeka do novej dimenzie formuluje aj niekoľko nových javov, ktoré sú späté so súčasným človekom. Ide napríklad o virtuálnu identitu a spôsob jej formovania, vytváranie planetárnej kyberkultúry s multikultúrnymi vstupmi, plošné planetárne šírenie angličtiny ako jazyka komputerzácie, homogenizáciu kyberčasu, vzrast počtu ľudí pripojených k sieti a počítačovej gramotnosti, vzrast vzdelanostného potenciálu ľudí na sieti, nárast kreatívneho potenciálu na sieti. Autor sem zaraďuje i zvýšenie výkonu hardwaru a softwaru na sieti a najmä chápanie osobných počítačov a internetu ako extenziu (multiplikátor) ľudskej komunikácie, pamäti a mozgu a ich vzájomné prepojenie s celým planetárnym systémom na sieti.[1] Francúzsky sociológ J. Lohisse (2003, s. 171) hovorí, že internet (a s ním aj kyberpriestor) je principiálne nové médium, ktoré mení ľudské myslenie, predstavivosť i poznávanie. Jazyk na internete je technický a musíme sa mu prispôsobovať – naša reč sa stáva technorečou. Naše myslenie sa tiež pod vplyvom internetu mení a formuje smerom k skratkovitému, povrchnému a diskontinuitnému. Na druhej strane sa však môžu posilňovať zručnosti v orientácií medzi rôznymi obsahmi kyberpriestoru, čo by ľudia v iných mediálnych epochách (podľa Lohissa ide o epochu reči, písma, masovosti (tlače) tak dobre nedokázali.

ZÁVER

Na základe vyššie uvedeného sme sa v stručnosti snažili z filozofického hľadiska vymedziť charakter a vlastnosti kyberpriestoru. Ako sme poukázali, je to práve existencia a najmä komunikácia v kyberpriestore, ktoré spôsobujú v ľudskom vedomí isté zmeny v chápaní kategórií času, priestoru ako i spôsobov a štruktúry myslenia. Na to, aby sme mohli fungovať a komunikovať v kyberpriestore, potrebujeme informačné technológie, ktoré sú (na rozdiel od minulosti) prenosné a čoraz viac prenikajú do nášho života. Kyberpriestor sa však stáva v niektorých prípadoch aj absolútnou súčasťou nášho tela, napr. použitím prístroja Google Glass či fenoméne zvanom kyborgizmus, kedy sa technológie stávajú aj súčasťou nervového systému ľudských tiel - ide teda o prepojenie na mentálnej i telesnej úrovni. Ide teda o prostredie, ktoré vzniklo vďaka rozvoju informačno-komunikačných technológií, digitalizácii, interakcii týchto technológií s človekom a vytvára tak nový prvok v ľudskej spoločnosti. Vznikajú tu nové nehmotné produkty, ktoré nie sú závislé na kategóriách času a priestoru a jeho prelínaním s ľudskou spoločnosťou sa mení človek i samotná spoločnosť.

V súvislosti s kyberpriestorom a jeho expanziou teda môžeme hovoriť o novej spoločenskej paradigme. Internet a s ním aj kyberpriestor predstavujú nové – revolučné prostredie a nástroje, ktoré spôsobujú transformáciu na individuálnej, ale aj kolektívnej (spoločenskej) úrovni. Prinášajú nespočetné množstvo príležitostí a výhod, ale aj isté negatíva či riziká (napr. v kontexte vzdelávania, patologického správania ako napr. kyberšikanovanie, kybergrooming a i.). Je preto na každom z nás, aby si zo širokého diapazónu možností, ktoré kyberpriestor predkladá, vyberal tie, ktoré budú smerovať k skutočnému osobnému rozvoju a prosperite celej spoločnosti.

Použitá literatúra

1. CLARK, D. *Characterizing,cyberspace:,past, present and future*. [online]. 2010. [cit. 2017-10-26]. Dostupné na: <https://projects.csail.mit.edu/ecir/wiki/images/7/77/Clark_Characterizing_cyberspace_1-2r.pdf>
2. FABUŠ, P. Co jsou to nová média? In: *Literární noviny*. [online]. ISSN 1210-0021, 2006, roč. 17, č. 52/1, str. 12. [cit. 2017-11-17]. Dostupné na: <http://archiv.ucl.cas.cz/index.php?path=LitNIII/17.2006/52b/12.png>

[1] Bližšie je táto problematika popísaná v publikácii P. Sak a kol.: Člověk a vzdělání v informační společnosti, 2007, s. 32-36.

3. GÁLIK, S. a kol. *Kyberpriestor ako nová existenciálna dimenzia človeka*. Łodź: KSIĘŻY MŁYN, 2014. 187 s. ISBN 978-83-7729-250-1.
4. GÁLIKOVÁ TOLNAIOVÁ, S. Možnosti a nebezpečenstvá internetu a internetovej komunikácie v kontexte aktuálnej reflexie. In: GÁLIK, S. a kol. *Možnosti a nebezpečenstvá komunikácie na internete*. Trnava: FMK UCM v Trnave, 2014. ISBN 978-80-8105-605-5, s. 28-51.
5. JIROVSKÝ, V. *Kybernetická kriminalita – nejen o hackingu, crackingu, virech a trojských koních bez tajemství.* Praha: Grada, 2007. 284 s. ISBN 8024715619.
6. LÉVY, P. *Kyberkultura.* Zpráva pro radu Európy v rámci projektu „Nové technologie: Kulturní spolupráce a komunikace.“ Praha: Karolinum, 2000. 230 s. ISBN 80-246-0109-5.
7. LOHISSE, J. *Komunikační systémy. Socioantropologický pohled*. Praha: Karolinum, 2003. 198 s. ISBN 80-246-0301-2.
8. MACEK, J. *Úvod do nových médií*. Ostrava: Ostravská Univerzita v Ostravě, 2011, 71 s. ISBN 978-80-7464-025-4.
9. MACEK, J. *Nová médiá.* [online]. © 2001–2005. [cit. 2017-10-24]. Dostupné na: <http://rpm.fss.muni.cz/Revue/Heslar/nova_media.htm>
10. OTTIS, R., LORENTS, P. Cyberspace*: definitions and implications*. [online]. 2010. [cit. 2017-10-23]. Dostupné na: <https://ccdcoe.org/multimedia/cyberspacedefinition-and-implications.html>
11. RANKOV, P. *Informačná spoločnosť. Perspektívy, problémy, paradoxy*. Levice: L.C.A. Publishers Group, 2006. 173 s. ISBN 80-89129-91-9.
12. REIFOVÁ, I. a kol. *Slovník mediální komunikace*. Praha: Portál, 2004. 328 s. ISBN 80-7178-926-7.
13. SAK P. a kol. *Člověk a vzdelání v informační společnosti*. Praha: Portál, 2007. 290 s. ISBN 978-80-7367-230-0.
14. ŠKOP, M. Hranice práva a kyberprostoru - subverzivita kyberpostoru. In: *Právník.* ISSN 0231-6625. 2005, č. 10, s. 1158-1168.
15. VAŠUTOVÁ, M. a kol. *Proměny šikany ve světě nových médií.* Ostrava: FF Ostravské univerzity v Ostravě.,2010, 226 s. ISBN 978-80-7368-858-5.
16. VOLEK, J., JIRÁK, J., KÖPPLOVÁ, B. Mediální studia: východiska a výzvy. In: *Mediální studia*. ISSN 1801-9978. 2006, č.1, s. 8-20.

Kontaktné údaje

Mgr. Vladimíra Hladíková
Univerzita sv. Cyrila a Metoda v Trnave, Fakulta masmediálnej komunikácie
Nám. J. Herdu, 2
917 01 Trnava
SLOVENSKÁ REPUBLIKA
vladka.hladikova@gmail.com

THE IMPORTANCE OF DRAWING IN PRESCHOOL PERIOD

Lucia Minichová

Abstract

It could seem that the approach which we deem suitable motivates a child, develops it and brings new possibilities to its life because the child does not fight back but it is accepted. It adapts and it realizes that which is demanded. We cannot tell whether or not the child wants it too. Often, we cannot judge or mediate the interest to come from own intrinsic motivation and the belief of a child. Its activity and aim are most often conditioned to various external influences.

Keywords: *child, preschool age, drawing, free creation, spontaneous display*

1 DRAWING WITHOUT REQUESTS AND EXPECTATIONS

Free drawing allows the child to express that, what it feels, what interests it. The express it in its own style. This is the unlimited creation. According to Cognet (1, p.23) the experts define free drawing as the drawing without requests which is made by a child in its individual style. The child draws on its own, with as few limitations as possible. "*This graphical display without formalised request can be marked with a little exaggeration as shackleless, unbound by stereotypes, or even unpredestined and subject to nothing."*

In our understanding, a child approaches the free drawing most, when it choses time and place for its drawing as well as the content and the technique. A free drawing can similarly be that which was created in co-operation for instance with another child or in the presence of other adult person. The presence of another person has its specific role. It can be present because the child requires company, because it plays, because it demands it or it finds it without requesting. However, even here it is difficult to talk about absolutely free creation of a child. According to Cognet (1, p.24) a free drawing is a result of a series of compromises. "*The first compromise is done by a person itself under the leadership – said in Freudian terminology- preconscious which either filters or it demonstrates to be seen. The second compromise is connected with the ecosystem – family, close ones, school- and with rich or poor investments and stimuli while the last compromise is bound to the person for whom the picture is with another person, …"*

If the child can express itself freely, without limits, the way for its creative display and to produce something new is open. In the opposite case, it puts itself in passive position from which it accepts and fulfils requests of the surrounding. Often, learnt and used displaying techniques, repetitive themes which are used by a child normally and which are learnt are shown in the drawing of a child. It is difficult for it to get rid of this approach. It is natural that a child finds preferred and gladly repeated elements. If a repeated theme appears in which it is possible to see some advance and the drawing is limitless, from the long-term point of view, we consider this drawing as free, too. A child needs time and space, the removal of limits which block such manner of expression. Only then it can freely use other possibilities, it can experiment, explore and create as well.

"… a child finds itself only rarely in the conditions which would allow such vast freedom of self-expression which would considerably exceed a formal choice of the background, tools and even theme and illustrations." (1, p.23)

On one hand, we want to provide these conditions for a child, on the other hand, it is continually submitted to our requests, wishes and orders. The child's desire to draw individually is so strong, that it cannot only directly, but in more difficult circumstances even indirectly demonstrate the conflict with that which does not suit it. It is persistent and patient and it tries to accomplish its demands. According to A. S. Neill (4, p.74) *"…the enforcing of anything from the position of authority is not right. A child should not do anything, until it reaches the opinion- its own- that it should do it."*

The drawing is not a temptation for all children. Some draw daily, some never. There are days when the interest is minimal and there are those, when a child can produce amazing creations. We do not want the child to become uninterested in creating drawings to which it brings its rich imagination. We want the child to produce them constantly but that can't be achieved if we organize the child with this intention. If the appropriate conditions are provided, a child can produce maybe a smaller amount of drawings but they will be made with more creative approach. Such approach will be in its interest and the relation to the drawn will be stronger, a child will be creative and it will bring deeper emotions to its creations.

2 THE DEMONSTRATIONS OF A CHILD IN FREE DRAWING

Based on preliminary observations and conversations with children, we can say, that free or spontaneous drawing of a child has some characteristics which is reflected in the demonstrations of children. A child can find its way to spontaneous demonstration by various means and it can always decide what and when it will draw. In the following paragraphs, we describe some of them.

A child tries to reject differently but accept as well that which it does not want to draw, it avoids that which is not in its interest. Based on experience with the tasking to a child, we can state that a child can often deal with the task against its will. It is for instance when it does not have a close relationship with the person that gives the task and it considers this person as an authority. Another situation can occur, when a larger group of children joins the drawing. They have the same task and there is no place for preferring anyone's own interests or making compromises. It tries to adjust the task and to make it faster. If it has the option, it tries variously to avoid the topic with which it does not identify itself. In other situations, it strongly rejects, ignores the task and it drawn individually, mostly in the proximity of a close person that it does not consider an authority. It will rather accept the topic suggested by a partner on the same level, someone equal.

Valachová (6) considers the interest of a child in preschool age in drawing natural. In the opposite scenario, the child can have problems connected to motoric skills, intellect, perception or attention. The uninterest can be linked to undeveloped laterality, or the inability of correct manipulation and handling with the drawing material. A great disappointment can be the uninterest or depreciation of the child's creation any other child, parent, teacher or other person.

The feeling of giving is pleasant for a child, it motivates for further creations. That is one of the ways when a child spontaneously returns to drawing. It is important to talk about drawing and to show the interest about it. A child whose creation receives attention with positive reactions, reflects this interest, it is active, it draws more and it produces new creations. Coget (1) as well attributes importance to encouragement and interest about the child's creation. In this case, the child will gladly continue to transmit its display of life on the paper.

In situations, when a child is creating a gift, or an intention is made to give its creation to somebody later, a child tends to fold, pack or crumple its creation to smaller form. It wants to

hide, what it made and make it a surprise. Children do this with drawings which they value, put away and keep as well. Sometimes they hide them thoroughly, so the drawing cannot be found by anybody, so it will not get lost. They fold it nicely and sometimes, they add a trinket or a ribbon.

If a child is not demanded to the drawing activity and freedom of choice what to draw is kept, it manifests itself rarely or never. This is valid for some children. In the case, that a child is deciding whether to draw or not, there are often tries, experiments out of which rich drawings emerge from the formal point of view and even more from the content. According to Valachová (7) for child's manifestation in its beginnings, a typical constant change of the contextual interpretation is present, as well as its dynamics. The form seems to be simple and static.

In this case, we mention the example of a 4 years old girl, picture 1 and picture 2, the topic *My favourite toy*.

The child is drawing a most beloved toy, a kitty (Nataly has a pet cat and in this case, she considers it a toy as well). When I am asking, if the pet cat looks like this as well, she is answering *yes.* She illustrates small balls, *the kitty made poo*. During the drawing activity, I am asking questions but I don't get answers always or I have to wait for it.



Picture 1

The girl wants to resume the drawing so she gets a new sheet of paper. I pick a topic again, *Bicycle*. She starts with a circle but after a while the answer to my question *What is it?* Is revealed, it is a *mole* which was seen by the girl on her way to kindergarten. She forgot the topic *Bicycle*, the circle evoked the resemblance to the mole, so she continues. I am not trying to convince her. She adds her favourite balls to the mole, *they are there so that a cat won't catch it.* The girl's answer is always interesting, she elaborates and surprises me. Her mole is coloured because that is the way she wants it to be, even though it was brown. She draws a hedgehog that she saw earlier. The mole which she had drawn as first, is interpreted as a hedgehog. When I ask about other forms, she says: *I can't guess them*. When I ask where is the mole, she points at the original, big shape with balls. Then she corrects herself and points next again.



Picture 2

A child sometimes pictures multiple stories at the same time and the interpretation overlaps as well, without continuity and connection. These events overlap with no regard to time, place, they occur in the drawing of a child. This creation may seem chaotic but aa child has an overview for a while.

If it decides on its own, what to draw, they are often tries, poorer from the formal point of view or from the contextual point of view. If these are repeated, they gain importance and a richly interpreted drawing may be created.

Besides, that children draw alone and without a partner, from time to time they get used to seek company. They join a sibling, they join somebody who likes drawing, or they draw next to an adult, for instance the mother who is cooking or doing some activity. A child invites to joint drawing somebody, with whom it feels satisfied, it seeks equal partners but others with positive relation to, too. The company of someone else is confirmed by words of Csikszentmihalyi (3, p. 199, 218)

"...Almost every activity brings greater joy, when somebody else is present and lesser joy if done all alone. People are happier, livelier and merrier when other people are around compared to being alone…"

"…When we are with friends, we do not have to be other than we are. They strengthen our feeling of our own self, instead of trying to change it."

Even though a child perceives the company of other person positively, it often prefers it to be passive, it rejects interference. A conversation about drawing during its realisation is conducted mostly unilaterally. A child is so focused on the activity that it does not answer or it responds after a while. Even an apparent dialogue during drawing between two children seems without continuity. They talk, but everyone talks about something else. If they ask, they do not expect an answer and they answer when nobody asked aloud. They are interested in what they are doing and immersed in the story of their picture, but in their own way, they can react. There are children, who require intervention and help, in this case it is important to guess the extent of provided help so we help the child but not represent its role.

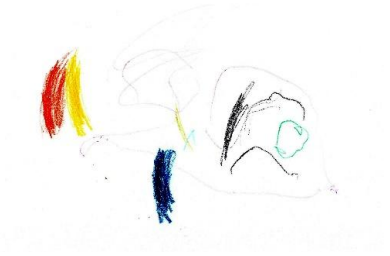
The presence of another person can disturb or embarrass a child. A child can recognize and perceive if an adult is expecting something from it, it tries to oblige, to please or it has a feeling that it has to. Then it suppresses all spontaneity. (2)

Free drawing in a team or in a couple offers new possibilities to the child. In interaction with other child, many games are created which are made by spontaneous child drawing. The stories take place in mutual interaction, they compare pictures. It can be competitive which from the positive point of view, encourages a child to create.

Children tend to copy the style of depiction and its content as well, they copy a drawing from each other. It does not take long and a child is wafted by its own imagination which is brought to drawing. An important role here are motoric skills available to a child, which allow it to express itself on specific level. Even though these conditions bring the copied elements to the drawing as well, we consider it as an unforced form of manifestation, when the child is not forced with the display forms but they are its choice, the way it plays and identifies with its friend. It cannot be in an environment in which it is isolated from the world. We had an opportunity to hear a conversation of two girls not older than three years in similar situation. The more dominant girl (gZ) designated the course of drawing more often.
(t- teacher, gA- girl A, gZ- girl Z):

t: I have heard, that you can draw very nicely?
gZ: I can draw a a a monkey.
gA: I can draw a monkey too.
t: What are you going to draw, a butterfly?
gA: I can draw a monkey already.
gZ: Me too.
t: Where did you learn how to draw a monkey?
gA: I learnt it at home.
gZ: I saw a monkey there ... .
gA: I saw a monkey there too.
gZ: I want that crayon too.
gZ: I love green too.
gA: I love green too.
t: Pick any crayon.
t: What are you going to draw?
gZ: A butterfly… and it is done.
gZ: There it is…. Are we going? *(the attention of the child is changed to toys in the classroom)*
t: Yes?
gZ: He….
gA: There it is too.
t: We are not going there now. Let's return.
t: What are you drawing now?
gZ: That is a garden so the butterflies won't go out.
gZ: I want that crayon too.
gZ: This is a butterfly, this too, that too, that, that.
gZ: I don't want.
gA: I don't want neither.
t: Would you like some more paper?
gZ: I don't, thanks.
gA: I don't neither.

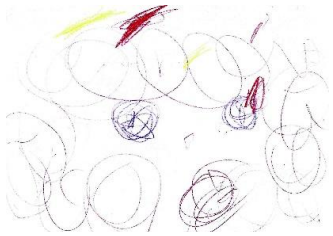
(The results were different pictures, picture 3-5)



Picture 3 (gA)



Picture 4 (gZ)



Picture 5 (gZ)

The child's intention in display by drawing is always changing. During the addition to the picture with new elements, new associations are being created continually and new interpretations of the displayed as well. In this manner, free drawing allows the space for creating different variations and a child is not limited by anything. In the result of the drawing this intention can be repeatedly replaced by a new one. A child can always interpret its drawing in a different way. According to Cognet (1) the picture is created without previous intention and the child names it based on the resemblance to something real. To this conclusion, it comes based on the words of Luquet, who deems random if a child created a line which resembles to something. This lucky coincidence does not repeat itself just like that. A child continuously creates part random part intentional drawings. Gradually, it comes from random display to premediated display. A similar explanation about the child's choice of theme comes from Roseline Davido (2). The theme which is chosen by a child is changing during the drawing and new intentions are being created which do not have anything in common with the original ones.

The opposite is a controlled drawing, during which a group of children draw at a desk to some layout which is the same for everybody. With older children, the teacher tends to try to approximate the most realistically pictured motive. Davido (2) lacks originality in the creation which in schools, is subjected to exact imitation of reality. A child is limited to monotonous depiction and processing of identical and often repeated motives. If it is connected to some occasion, it slavishly copies reality.

The difference between a drawing which was created on its own and a drawing which was tasked is significant. It creates certain attitude towards the manner of realisation. A spontaneous drawing occurs based on some stimulus which, if identified with, is created. It is up to the child. A controlled drawing, a request to drawn can be connected to refection if the child is not ready or it does not identify itself with the given topic.

Drawing has meaning for a child. Every picture is created with some purpose. One of them is for whom a child is drawing. A child often gives its picture to an adult or other child. It gives, exchanges or keeps the drawing. Such drawing contains something which a child tries to share, always. If we talk with the child about drawing, we learn new stories which are part of child's life.

"...Every picture has its aim, it is created, realised, unwittingly transformed according to the receiver...a child's drawing is not stereotypical, a different picture is dedicated to parents than to a teacher or a psychologist." (1, p.11)

Situations when a child draws are various. It can be morning, before the departure to kindergarten, at the exact time when a parent is in a hurry, at the doctor's in the waiting room, or at a visit. An interruption of this activity is often connected to ignorance or anger of a child.

It has to interrupt its activity and it does not like it. More often, a child starts drawing in situations when it is bored.

Children mutually react to their drawings. They are critical in their own way, direct and open. It does not say how another child should draw it, it focuses on the things which are missing or what could be there. In such way as it is close to a child, through fantasy children add, warn. Everything is permitted, possible and spontaneous. If something is said, it does not have to be an order. On the contrary, adult reactions are often misunderstood for a child because the task itself comes out of the adult's interest thinking, that it is equally interesting for a child. The adult would need to know it to an extent in order to guess when and what and when it wants to draw. We can approximate to this if we know the moods of the child, its actual status, interest, possibilities which it has.

It is difficult to understand the child's world. It appears, that not only during drawing but during similar situations when it is focused, when it plays it creates an imaginary world based on its own ideas in which everything is alive. Cognet (1) mentions a conversation of a girl with a pony on the photo. The girl is capable to bring the picture in front of her to life while realising that it is a photo. Neither Neill (4) could find out where the borderlines of child's fantasy start and end. He presumes that children really imagine that their toys are real and that the differences between the reality and fantasy often disappear.

The action of child's drawing is preceded by various situations, a child as available material, it sees another child drawing, it has a feeling that the surrounding is interested in its creation, it wants to give a present to somebody. These stimuli further develop its motivation. Many authors (Cognet, Davido, Suchánková) emphasize the motives leading to natural, spontaneous drawing of a child which is not subordinate to another interest except the child's. The rising from own inner motivation we as well consider motivating, leading to the action of drawing if another child is drawing, if it is fun, game, creation of a gift, substantiation of a secret, favourite fairy tale. The activity of an adult as well, by writing and drawing stirs interest and it motivates a child to equal or similar activity. The discovery of new crayons and materials, the stimuli of the environment boring moments, exhausting physical activity changed for less demanding one, it all can motivate a child to natural expression through drawing. Material for drawing and the way how we offer it to a child has some limits. Free drawing material is considered the best option.

3 CONCLUSION

A child drawing can enthuse, enchant. We look at it with wonder and admiration. It contains a lot of unknown, mysterious. It became an inspiration for many artists and even in some cases, it is almost impossible to recognize it from a real work of art. In some cases, a picture can gain even more value for a child, it has an idea, it enjoys drawing, it likes that which is created. It deals with it with enough of its own time. It decides to give such a picture to itself, it wants to keep it, to put it among its valuables. The original intentions stop being important and a child gains feeling that the picture should belong to it.

A creation which has characteristic features of a work of art is born when the intersection between unconscious desires which are the source of imagination and reality which presents used material and a person for whom the picture is for is made. At the same time a child is not an artist because it does not realize its abilities and it does not intentionally control its actions. In time, this art is disappearing. (1)

Somebody shows admiration over neatly organised drawing in which he sees a piece of himself, satisfaction with the transmission of information and a demonstration of how the drawing should look like. Another seeks this beauty and he finds it in the creation of a child. He does not try to lead the child to individuality and to provide more options, he teaches it how to use them and other phases are left to the child. For Valachová (7) it is important to go to the same aim so that it is allowed to perceive itself and then, based on it, the surrounding world. So it can individually solve tasks, ask and find answers, seek information about the world, about art, through creative thinking.

Sources

1. COGNET, G. 2013. Dětská kresba jako diagnostický nástroj. Vyd.1. Praha: Portál, 2013. 204 p. ISBN 9788026204992
2. DAVIDO, R. 2008. Kresba jako nástroj poznání dítěte. Praha: Portál, 2008. 208 p. ISBN 9788073674151
3. MIHALY, C. 2015. Flow. Praha: Portál, 2015. 328 p. ISBN 9788026209188
4. NEILL, A.S. 2015. Summerhill. Příběh první demokratické školy na světě. Druhé vydání. Praha: PeopleComm s.r.o., 2015. 348 p. ISBN 9788087917169
5. SUCHÁNKOVÁ, E. 2014. Hra a její využití v předškolním vzdělávání. Praha: Portál, 2014. 176 p. ISBN 9788026206989
6. VALACHOVÁ, D. 2005. Výtvarný prejav detí z multikultúrneho prostredia. Bratislava: Psychodiagnostika, a.s., 2005. 194 p. ISBN 9788088714026
7. VALACHOVÁ, D. 2009. Povedzme to farbami alebo multikultúrna výchova a jej možnosti vo výtvarnej výchove. Vydání první. Brno: Tribun EU, 2009. 146 p. ISBN 9788073998554

Contact information

Mgr. Lucia Minichová
Department of art (KVV), Šoltésová 4 (workplace)
Faculty of Education, Comenius University (UK, PdF)
UK PdF, Račianska 59, Bratislava, 813 34
e-mail: minichova4@uniba.sk
Tutor: doc. PaedDr. Daniela Valachová, PhD.

PROFESIJNÉ KOMPETENCIE AKO DETERMINANT PROFESIJNÉHO ROZVOJA UČITEĽA

PROFESSIONAL COMPETENCIES AS A DETERMINANT OF THE TEACHER´S PROFESSIONAL DEVELOPMENT

Margita Feranská

Abstrakt

Cieľom príspevku je teoretická analýza profesijných kompetencií učiteľa jako determinant profesijného rozvoja. Utváranie profesijných komptencií prebieha nie len počas prípravného ale aj ďalšieho vzdelávania a získavania teoretických a praktických vedomostí a zručností. Teoretické a praktické vedomosti učiteľa tvoria súčasť jeho profesijných kompetencií.

Klíčová slova: *profesijné kompetencie, profesijný rozvoj učiteľa, determinanty profesie učiteľa*

Abstract

The aim of the contribution is the theoretical analysis of the teacher's professional competences as a determinant of his professional development. The development of professional skills takes place not only during the preparatory but also further education and the acquisition of theoretical and practical knowledge and skills. The theoretical and practical knowledge of the teacher forms part of his / her professional competencies.

Key words: *professional competences, teacher´s professional development, teacher´s determinants*

1 PROFESIJNÝ ROZVOJ UČITEĽA

V súčasnosti je profesionalita učiteľa a nástroje podpory jeho profesionalizácie súčasťou otázky zmeny paradigiem vysokoškolského vzdelávania, ale aj súčasť celoživotného vzdelávania učiteľa. Vytvárajú priestor pre teoretické skúmanie otázok profesijného rozvoja učiteľa, pre vytváranie námetov na profesiografickú štandardizáciu profesijných kompetencií učiteľov a ich profesijného rastu.

Podľa M. Píšovej, P. Najvara, T. Janíka, S. Kostkovej, V. Janíkovej (et al., 2011) a I. Pavlova (2013) predstavuje profesijný rozvoj učiteľa rôznorodý súbor paradigmatických prístupov, modelov a chápaní. Už dlho sa profesijný rozvoj nemyslí a nevníma len jako ďalšie vzdelávanie učiteľov po ukončení vysokoškolského štúdia, ale aj ako proces zlepšovania a zdokonaľovania sa učiteľov, pozitívnych zmien ovplyvňujúcich kvalitu vlastnej pedagogickej činnosti a učebných výsledkov žiakov. I. Pavlov (2013) poukazuje na neustálenost teoretických východísk profesijného rozvoja a tejto problematiky v oblasti pojmov nepoužívaných zhodne v adekvátnych kontextoch oblasti pedeutológie. Systematizuje relevantné pojmy ako pedeutológia, profesionalizácia, profesijná dráha, profesijný vývin, profesijná kariéra, profesijné učenie, profesijný rozvoj ako témy teórie profesijného rozvoja učiteľov.

Názorové a teoretické rozpory spôsobujúce napätie v procese profesionalizácie učitelstva, vytvárajúce príležitosti na teoretické skúmanie a hľadanie optimálních riešení.

Zaraďujeme sem rozpory medzi požiadavkami na výkon profesie a jej aktuálním výkonom, chápaním učiteľa ako autonómneho jedinca a direktívne riadeným zamestnancom verejného

školstva, či centralizovaným a decentralizovaným modelom riadenia procesov podpory profesijného rozvoja a i. (Rovňanová, 2015).
Súhlasíme s názorom I. Pavlova (2013), že profesijný rozvoj je permanentným procesom, ktorý v sebe zahŕňa všetky dimenzie rozvoja osobnosti učiteľa a následne aj jeho kompetencií. Zároveň vytvára osobnostné předpoklady na vnútornú motiváciu k spôsobilosti celoživotne využívať príležitosť využívať formálne a neformálne vzdelávanie učiteľov, či informálne učenie a na tvorivé zdokonaľovanie kvality výkonu profesie a edukáciu žiakov.
Pre porovnanie uvádzame vymedzenie, ktoré považujeme za východiskové, ktoré určuje zákon. V podmienkach SR podľa zákona č. 317/2009 o pedagogických a odborných zamestnancoch profesijný rozvoj vymedzuje ako: *„proces prehlbovania, zdokonašovania a rozširovania kvalifikácie a profesijných kompetencií v súlade s najnovšími vedeckými poznatkami, spoločenskými potrebami a požiadavkami na výkon pedagogickej činnosti. Profesijný rozvoj sa v kariérovom systéme uskutočňuje prostredníctvom kontinuálneho vzdelávania, tvorivých aktivit súvisiacich s výknom pedagogickej činnosti a sebavzdelávania.“* Vymedzenie profesijného rozvoja učiteľa považujeme za teoretické východisko, ktoré sa nám stáva smerodajným pri vymedzovaní a analyzovaní tohto pojmu.
Za posledných 20 rokov sa v pedeutologickej teórii a praxi zaznamenali premeny v pojatí učiteľskej profesie a tiež meniace sa podmienky práce učiteľov. Podľa B. Lazarovej. A kol., 2011) tieto zmeny ovplyvnili aj kvalitu absolventov a následný výkon ich profesie. Postupne dochádzalo tiež k určitým rozporom či problémom, ktoré vyžadovali riešenie. Súhlasíme s týmto názorom a následne uvádzame podľa vyššie spomenutej autorky nasledovné oblasti premeny v profesii učiteľa, resp. v jeho profesijnom rozvoji:

- nastal posun v chápaní podstaty učiteľskej profesie, od poslania k odbornosti, učiteľstvo je odbornou verejnosťou prevažne akceptované ako expertná profesia, aj keď učitelia sa radšej hlásia k poňatiu učitelstva jako poslaniu,
- zvýšila sa náročnosť profesijného výkonu, pracovné nasadenie je vysoké, nie len ako dôsledok nových vzdelávacích požiadaviek, ale tiež života a hodnôt spoločnosti a globálnych problémov,
- boli vytvorené zákonné podmienky k dosiahnutiu odbornej kvalifikácie učiteľov, či podmienky k dosiahnutiu čiastočnej profesijnej autonómie a zároveň sa zvýšila miera zodpovednosti každého jednotlivého učiteľa za vzdelávacie procesy a výsledky učenia žiakov,
- sú požazované nové profesijné vedomosti ako dôsledok nastavenia požiadaviek expertnosti učiteľskej profesie a nového poňatia školského vzdelávania.

Uvedené charakteristiky, oblasti sa vzťahujú veľmi úzko na profesijný rozvoj učiteľa, ktorý tiež v posledních rokoch nabral inovatívny smer. To prispelo ku kvalitnému rozvoju profesie učiteľa.
Ako sme už spomenuli, otázok profesie a profesijného rozvoja učiteľa je veľa a musíme vedieť, kde až spadajú začiatky teorie učitelského vzdelávania a aj podnety pre rozvoj vysokoškolskej didaktiky, ktorá je úzko spätá s profesijným rozvojom učiteľa a tiež jeho vývinom. Teóriou učitelského vzdelávania chceme poukázať hlavne z dôvodu jej rozvoja a teda práce to môže byť aj inšpiráciou, resp. podnetom pre profesijný rozvoj učiteľa.
J. Kohnová (2012) považuje za profesijný rozvoj akúkoľvek činnost učiteľa, prostredníctvom ktorej sa rozvíjajú individuálne vedomosti, schopnosti, zručnosti a iné charakteristiky profesie. Podľa autorky má profesijný rozvoj tri zložky a to:

1) inšititucionálne ďalšie vzdelávanie učiteľov,
2) sebavzdelávanie učiteľov,
3) profesijná prax učiteľa.

Tieto tri zložky tvoria súčasť profesijného rozvoja učiteľa, navzájom sa dopĺňajú, prelínajú a ovplyvňujú. Tiež hovoríme o značnom vplyve profesijného rozvoja jednotlivých učiteľov a aj o vplyve rozvoja školy a všetky tri spomenuté zložky sú významné a nezastupiteľné.

2 DETERMINANTY PROFESIJNÉHO ROZVOJA UČITEĽA

Význam determinantov profesijného rozvoja, ktoré sa priamo vzťahujú k osobe učiteľa a k jeho profesionalite podnecujú aj učiteľov osobnostný a profesijný rast. Pre podrobnejší pohľad na determinanty, ktoré ovplyvňujú profesiu učiteľa sme vychádzali z konkrétního rozdelenia determinantov na subjektívne a objektívne. Môžeme ich nazývať aj vonkajšie a vnútorné determinanty. Východiskovou sa nám stala koncepcia Pařízka (1994) In Píšová et al. (2011), ktorá delí determinanty profesie učiteľa na subjektívne a objektívne.

Pre potřeby tohoto príspevku sa budeme podrobnejšie venovať subjektívnym determinantom profesijného rozvoja, z dôvodu, že profesijné kompetencie učiteľa považujeme za vnútorný, subjektívny determinant profesie učiteľa.

Subjektívne determinanty podľa M. Píšovej a kol. (2011) predstavujú komplexný dynamický súbor vzájomne sa ovplyvňujúcich faktorov, ktoré sa vyvíjajú v čase a sú vysoko relevantné z hľadiska profesijného rozvoja učiteľa. V týchto determinantoch sa vychádza zo psychológie, konkrétne z výskumov osobnosti učiteľa. Predpokladom bolo, že v konaní učiteľa sa vychádza z jeho *osobnostných rysov a charakterových vlastností,* ktoré možno identifikovať a na základe toho aj predikovať úspešnosť učiteľa a tak aj možnosti jeho profesijného rozvoja. Súvisiace determinanty, do značnej miery biologicky ovplyvnené môžeme zaradiť aj *charakterové* a *morálne vlastnosti učiteľa,* ako základňu pre profesionalitu učiteľa. Medzi ďalšie subjektívne determinanty zaraďujeme podľa vyššie uvedenej autorky aj *kognitívny štýl učiteľa.* Pokiaľ hovoríme o kognitívnom štýle učiteľa, môže súvisieť napríklad s vplyvom kognitívneho štýlu učiteľa na jeho vyučovací štýl, resp. jeho preferencie pri vyučovaní.

Ďalej sem patrí *oblasť jeho emocionálnych, vôľových a postojových, etických aspektov, vlastností učiteľa.*

Ako ďalší determinant sem môžeme zaradiť *profesijnú identitu učiteľa,* ktorú sme už charakterizovali vyššie, v predchádzajúcich častiach príspevku. V tejto časti sa jej budeme venovať ako subjektívnemu determinantu profesie učiteľa. Identita učiteľa tiež zahŕňa vlastné vnímanie „profesionálneho ja“. Čo úzko súvisí s predchádzajúcim pojmom subjektívne vnímaná zdatnosť učiteľa. U učiteľov vstupujú pri utváraní profesijnej identity špecifické faktory, ktoré sú typické pre profesiu učiteľa.

Zaujímavým zistením bol pre nás výskum Beijaarda et al. (2000), ktorí skúmali vývin poňatia vlastnej identity skúsených učiteľov stredných škôl. Výskum sa zaoberá tromi alternatívami vnímania vlastnej identity a to identitou odborového experta (svoju profesijnú identitu učiteľ zakladá na vedomostiach, zručnostiach v oblasti obsahu vyučovacieho predmetu). Druhá identita je identita didaktického experta (zahŕňa v sebe identitu, ktorá sa vzťahuje k vedomostiam a zručnostiam v oblasti plánovania, realizácii, evaluácií vyučovacieho procesu). Tretia alternatíva sa zameriava na identitu pedagogického experta (vo svojej práci akcentuje podporu žiakovho sociálneho, emocionálneho, morálneho vývinu). Autori Beijaarda et. al. (2000) identifikovali signifikantný rozdiel medzi vnímaním identity učiteľov na počiatku kariéry a po získaní skúseností. Na začiatku kariéry sa profesia resp. identita učiteľa viazala na odbor, pričom po skúsenostiach mali učitelia identitu rozdelenú rovnomerne na všetky tri spomenuté dimenzie.

Subjektívne determinanty profesijného rozvoja učiteľa zahŕňajú aj profeijné kompetencie učiteľa jako oblast profesionality učiteľa. Profesijným kompetenciám učiteľa sa podrobnejšie věnujeme v nasledujúcej podkapitole.

2.1 Profesijné kompetencie učiteľa

Z. Syslová (2013) chápe profesijné kompetencie ako súbor osobnostních a odborných predpokladov a vlastností pre výkon učiteľskej profesie. Profesijné kompetencie definuje viacero autorov ako Helus (2008), Průcha a kol.(2009), Spilková (2001), pričom ich definujú ako komplexné spôsobilosti k úspěšnému vykonávaniu profesie, ktorá zahŕňa vedomosti, znalosti, postoje, hodnoty a osobnostné charakteristiky.

Pojem profesijné kompetencie učiteľa zahŕňa v sebe aj pedagogické vedomosti resp. znalosti, (Walterová, 2001; Janík, 2005; Švec, 2006).

Švec (1999) vymedzuje profesijné kompetencie učiteľa jako oblasti rozvoja osobnosti učiteľa prostredníctvom troch skupín kompetencií:

- kompetencie k vyučovaniu a výchove,
- osobnostné kompetencie, podmieňujúce úspešné pedagogické pôsobenie,
- rozvíjajúce kompetencie (patria sem informačné, výskumné, sebareflexívne a autoregulatívne kompetencie).

Spomenuté skupiny kompetencií vychádzajú z poňatia pedagogických vedomostí, ktoré učiteľ využíva pri svojom každodennom pôsobení na žiakov, počas vyučovania.

Podľa T. Janíka (2009) pri profesijných kompetenciách možno hovoriť ako o vedomostiach, ktoré sa vzťahujú k reprezentácii obsahu a súčasne porozumení špecifických učebných ťažkostí a ich (pre)koncepciám. Vďaka týmto vedomostiam je učiteľ schopný:

- vidieť v učive jeho potencionality pre rozvoj vedomostí, kompetencií a ďalších dispozícii žiakov,
- predvídať efekty určitého spôsobu výkladu a (re)prezentácie učiva na žiakovo porozumenie,
- reflekcia možností sprostredkovania učiva v rôznych fázach vyučovania a vo vzťahu k ďalšiemu učivu,
- porozumieť (pre)koncepciám a špecifickým učebným ťažkostiam žiakov,
- zmysluplne prepájať perspektivu prirodzeného světa žiakov s perspektivami vyučovacích predmetov,
- organizovať a citlivo usmerňovať reflexiu a diskusie so žiakmi vzťahujúcich sa k riešeniu učebných úloh.

V rámci učiteľskej profesie môžeme hľadať spôsoby zdokonaľovania profesijných kompetencií učiteľa. Medzi základné metódy rozvoja profesijných komeptencii môžeme zaradiť analýzu kurikulárnych materiálov a príprav na vyučovanie, reflexiu (sebareflexiu) učebnej činnosti vo vyučovaní, akčný výskum, vzdelávacie kurzy a workshopy a i.

Praktické aktivity smerujúce k rozvoju profesijných kompetencií učiteľa sa opierajú nie len o teoretické ale aj o empirické východiská.

Didaktické kompetenci esa prejavujú aj v mnohých ďalších a iných oblastiach práce učiteľa a v celej ich šírke sa nedajú celkom pokryť. Profesijné kompetencie učiteľa charakterizujú kvalitný výkon učiteľa aj na základe profesijných štandardov, ktoré sú východiskom pre vzdelávanie učiteľov, pre ich ďalší rozvoj a hodnotenie.

3 ZÁVER

Odborná pedagogická literatura ponúka mnoho pohľadov na problematiku profesijných kompetencií učiteľa. Vo všeobecnosti, na základe analýzy mnohých autorov môžeme povedať, že profesijné kompetencie učiteľa sú schopnosti a vedomosti, ktoré sa považujú za individuálnu pedagogickú kategóriu v práci učiteľa. Profesijné kompetencie vychádzajú z každodenních činností a pedagogickej práce učiteľa, Utvárajú sa a zdokonaľujú sa učením a cvičením učiteľa, resp. ich výcvikom.

Použitá literatúra

1. BEIJAARD, D. 2000. *Teachers´ perceptions of professional identity: An exploratory study from a personal knowledge perspective Teaching and Teacher Eduaciation.* 16(7), p. 749-764.
2. HELUS, Z. 2008. Teoretická východiska pojetí učitele v době měnících se nároků na školu a vzdělávání. In SPILKOVÁ, V., VAŠUTOVÁ, J. *Učitelská profese v měnících se požadavcích na vzdělávání.* Praha: PdF UK. ISBN 978-80-7290-384-9.
3. JANÍK, T. 2005. *Znalost jako klíčová kategorie učitelského vzdělávání.* Brno: Paido. ISBN 80-7315-080-8.
4. JANÍK, T. a kol. 2009. *Možnosti rozvíjení didaktických znalostí obsahu u budoucích učitelů.* Brno: Paido. 148 s. ISBN 978-80-7315-176-8.
5. KOHNOVÁ, J. a kol. 2012. *Profesní rozvoj učitelů a cíle školního vzdelávání.* Praha: Univerzita Karlova v Praze, Pedagogická fakulta. 342 s. ISBN 978-80-7290-625-3.
6. LAZAROVÁ, B. a kol. 2011. *Pozdní sběr. O práci zkušených učitelů.* Brno: Paido. 158 s. ISBN 978-80-7315-206-2.
7. PAVLOV, I. 2013. *Štandardizácia profesijných kompetencií učiteľov (východiská a perspektívy).* 1. Vyd. Prešov: Škola plus, s.r.o. 126 s. ISBN 978-80-970275-5-1.
8. PÍŠOVÁ. M. et al. 2011. *Teorie a výzkum expertnosti v učitelské profesi.* 1. Vyd. Brno: Masarykova univerzita. 154 s. ISBN 978-80-210-5744-9.
9. PRŮCHA, J. (ed.). 2009. *Pedagogická encyklopedie.* Praha: Portál. ISBN 978-80-7367-542-2.
10. ROVŇANOVÁ, L. 2015. *Profesijné kompetencie učiteľov.* Banská Bystrica: PF UMB, Belianum. 201 s. ISBN 978-80-557-0739-6.
11. SYSLOVÁ, Z. 2013. *Profesní kompetence učitele mateřské školy.* Praha: Grada. 160 s. ISBN 978-80-247-4309-7.
12. ŠVEC, Š. 1999. *Pedagogická příprava budoucích učitelů: problémy a inspirace* Brno: Paido. ISBN 80-85931-70-2.
13. ŠVEC, Š. 2006. *Od znalostí k pedagogické kondici: nový vhled do pedagogické přípravy studentů učitelství.* Pedagogika, roč. LVI. č. 1. s. 91-102. ISSN 3330-3815.
14. SPILKOVÁ, V. Profesní standard a klíčové kompetence učitele primární školy. In WALTEROVÁ, E. (ed.). *Učitelé jako profesní skupina, jejich vzdělávání a podpůrný systém.* Sborník z celostátní konference. 2. díl. Praha: UK. ISBN 80-7290-059-5.
15. WALTEROVÁ, E. a kol. 2001. *Rozvoj národní vzdělanosti a vzdělávání učitelů v evropském kontextu.* Případová studie základní školy [online]. Praha: PdF UK. Dostupné na: http://userweb.pedf.cuni.cz/uvrv/kestazeni/htm.

Kontaktné údaje

Mgr. Margita Feranská
Katedra pedagogiky, Pedagogická fakulta UKF v Nitre
Dražovská cesta 4, 94974 Nitra
Tel: 037/6408222
email: margita.feranska@ukf.sk

ŽIDOVSKÁ TEMATIKA VE VÝUCE – NOVÉ NÁMĚTY

JEWISH THEMES AT SCHOOL – NEW TOPICS

Markéta Zvolánková

Abstrakt

Zevrubnou analýzou českých školských dokumentů bylo prokázáno, že všichni čeští studenti by měli být vedeni k náboženskému povědomí, a to v širokém kulturněhistorickém kontextu. Splnění tohoto požadavku je ověřováno u maturitních zkoušek. Práce je zaměřena na výuku tematiky židovské, již nelze v hodinách obejít, bývá však často prezentována zkostnatěle. Kromě pohledu na běžnou praxi tak práce předně přináší nové náměty do výuky.

***Klíčová slova**: Židé, školství, historie, jazyk*

Abstract

A thorough analysis of Czech educational documents has shown that all Czech students should be led to religious awareness, in a broad cultural-historical context. Compliance with this requirement is verified at the "maturita" test. The work is focused on the teaching of Jewish themes, which cannot be circumvented, but is often presented ominously at school. Therefore, in addition to looking at common practice, first of all the work brings new ideas into the tuition.

***Kea words**: Jews, education, history, language*

1 NÁBOŽENSKÁ TÉMATIKA NA ŠKOLÁCH

1.1 Teorie

Počátkem roku 2017 byl proveden výzkum[1] s cílem zjistit, zda je v kurikulárních dokumentech vydávaných MŠMT ČR zakotvena „náboženská tematika"[2] a v případě kladného výsledku rovněž specifikovat její postavení v rámci celku. Za tímto účelem bylo přistoupeno k detailní analýze tzv. *Rámcových vzdělávacích programů* (RVP) a dále tzv. *Katalogů požadavků zkoušek společné části maturitní zkoušky* platných pro rok 2017/2018[3].

Výsledky studie jasně ukázaly, že „náboženské povědomí" je požadováno po občanech ČR ze zákona; zastává ve vybraných dokumentech roli plnohodnotnou. Studenti by k němu měli být vedeni nejen ve výuce jednotlivých předmětů, ale také skrze tzv. průřezová témata[4] a klíčové kompetence[5]. Důraz by přitom měl být kladen nejen na znalosti základních principů té které víry, nýbrž i na zasazení problematiky do širšího sociálního, historického, literárního,

[1] Náboženská tematika ve výuce literatury na střední škole in QUAERE .: recenzovaný sborník příspěvků vědecké interdisciplinární mezinárodní vědecké [sic] konference doktorandů : „Hradec Králové, Česká republika, ISBN 978-80-87952-20-7. (dostupné zde: www.vedeckekonference.cz/library/proceedings/quaere_2017.pdf)

[2] Náboženské symboly, texty, skupiny osob jiného než křesťanského náboženství a jejich způsob života apod.

[3] Dokumenty byly zvoleny záměrně. Mají obecně závaznou platnost, jsou tudíž klíčové jak pro tvorbu tzv. Školních vzdělávacích plánů, tak pro úspěšné složení maturitní zkoušky.

[4] Osobnostní a sociální výchova, výchova demokratického občana, výchova k myšlení v evropských a globálních souvislostech, multikulturní výchova, environmentální výchova, mediální výchova.

[5] Soubory vědomostí, dovedností, schopností, postojů a hodnot důležitých pro osobní rozvoj jedince, jeho aktivní zapojení do společnosti a budoucí uplatnění v životě (více zde: https://clanky.rvp.cz/clanek/c/P/158/klicove-kompetence-a-jejich-uloha-v-predskolnim-vzdelavani.html/).

kulturního a politického rámce. Ten by měl být prostředkován osvícenými pedagogy - facilitátory[6].

1.2 Praxe

Podle *Katalogu požadavků zkoušky společné části maturitní zkoušky z* českého jazyka *pro rok 2017/2018* budou studenti závěrečných ročníků z „náboženského povědomí“ testováni, například formou otázek vztahujících se k tematice židovské.

Judaismus jako jedno ze tří abrahámovských náboženství ovlivňuje českou historii i písemnictví řadu staletí a vzhledem k rozsáhlé symbolice, jež se k tématu váže, je zhola nemožné se mu na školní půdě vyhnout. Otázkou zůstává, jakým způsobem je daná problematika studentům prezentována.

Mnozí učitelé se snaží židovskou potažmo česko-židovskou historii zestručnit na několik vybraných období. Mezi často skloňované patří starověk - epocha biblická a dále středověk - rudolfinská Praha[7]. Největší prostor pak zpravidla dostává novověk - druhá světová válka a holocaust.

Tento zjednodušený pohled ovšem vůbec neodpovídá cílům stanoveným v RVP a pevně věřím, že ani představám skutečných facilitátorů. Ti vědí, že vynecháním stovek let společné historie studenty ochuzujeme, a to nejen o poznatky ze života národa židovského, nýbrž i o porozumění vývoji národa českého.

Má-li si student „*uvědomovat – v rámci plurality a multikulturního soužití – vlastní kulturní, národní a osobnostní identitu a přistupovat s aktivní tolerancí k identitě druhých*“[8], bude zapotřebí rozšířit jeho obzory a upozornit ho na fakt, že:

„*...češství bylo do současnosti tvořeno součinností a podílem moravským, německým a židovským, oblastí ducha latinského a mediteránního, jsouc jedině takto zvláštní modifikací evropanství, nikoli jen vnějškového či administrativního, leč hluboce a odedávna vnitřního.*“[9]

2 ČESKO – ŽIDOVSKÉ DĚJINY

2.1 České prameny

Máme-li se zabývat blíže česko-židovskou koexistencí, musíme se ponořit hluboko do historie, konkrétně do 7. století, kdy byl vytvořen první kmenový svaz Slovanů vedený franckým kupcem Sámem. Ten dle kronik „*přál více mravům orientálním než domácím*“[10]. Přihlédneme-li k hebrejskému původu jeho jména[11] a dále k faktu, že dvorními zprostředkovateli obchodu Merejovců i Karlovců byli Hebrejci, lze se ptát, nebyl-li právě on prvním významným Židem v českých dějinách.

O aktuálnosti otázky svědčí i níže citovaná slova Lubomíra Zaorálka, tehdejšího šéfa české diplomacie, který během oficiální návštěvy Jeruzaléma v roce 2014 prohlásil:

„*Někteří historici dokonce tvrdí, že člověkem, který vytvořil první politickou entitu na české půdě a jehož jméno bylo Sámo, byl ve skutečnosti židovský kupec.*“[12]

---

[6] Odborník na vedení diskuse, asistent usnadňující vzájemnou komunikaci, osobnost znalá věci.

[7] Reálný obraz však často překrývá rouška fantastična. Více v chystané práci o Golemovi připravované ve spolupráci s Katedrou českého jazyka Západočeské univerzity.

[8] RVP Kompetence občanská. Dostupné z: http://www.msmt.cz/vzdelavani/skolstvi-v-cr/skolskareforma/ramcove-vzdelavaci-programy.

[9] ROTREKL, Zdeněk. Literatura – vězení – doba. In: *Literatura vězení exil*, vyd. 1. Praha: Nadace Readers International, 1997, s. 23. ISBN 80-901813-3-3.

[10] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 14. ISBN 80-900895-4-2.

[11] Sámo – Samuel, hebrejsky: שְׁמוּאֵל, Šemu'el neboli „vyslyšel Bůh“ či „jméno Boží“. Samuel [online] Centrum.cz Dostupné z: http://svatky.centrum.cz/svatky/jmenne-svatky/samuel-631/.

[12] Židovský tiskový a informační servis [online] Dostupné z: http://www.ztis.cz/rubrika/izrael/clanek/ministr-zaoralek-ve-svate-zemi-i-kupec-samo-byl-mozna-zid a dále [online] Idnes.cz

V případě kupce Sáma jde, přiznávám, jen o spoře podloženou hypotézu. Oficiálně potvrzuje přítomnost Židů v Čechách jednak analýza dvou právních dokumentů, a to *přípisu solnohradského arcibiskupa Arna* a dále tzv. *Raffelstettenského celního a plavebního řádu Ludvíka* IV, a především pak zpráva židovského kupce Ibrahima Ibn Jakúba o Praze[13]. Díky těmto textům lze s jistotou konstatovat, že Židé v českých zemích žili a obchodovali na začátku 9. století:

„*Za času prvního středověku býval Žid asi jediným obchodníkem mezi vzdělaným jihem a nevzdělaným severem*."[14]

Až do prvních křížových výprav byla situace Židů v českých zemích poměrně příznivá. Králové (Vratislav II., Soběslav II.) je považovali za tzv. hospites (hosté), cizince s výsadami. Židé tak mohli volně podnikat, volili si svobodně bydliště, provozovali řemesla, získávali půdu, často také pracovali u dvora a jejich obce měly plnou autonomii. To ostatně popisuje samotný Kosmas:

„*Nebo nikde se lépe neobohatíš, nikde více nezvelebíš, jako v podhradí Pražském a v ulici Vyšehradské. Tam jsou Židé zlatem a stříbrem nejvíc oplývající, tam z veškerých národů kupci nejbohatší, tam peněžníci nejzámožnější, tam tržiště, na kterém kořist hojná a přes hojnost dostane se tvým vojínům.*"[15]

Ruku v ruce s vývojem a upevňováním postavení katolické církve v Evropě se však postavení Židů ve většinové společnosti měnilo.

Jakkoliv byly kruciáty vedeny především za účelem vysvobození Svaté země z područí muslimů, prvními obětmi křižáků se stali právě Židé, již byli katolickou církví označeni za národ zodpovědný za smrt Krista[16]. K velkému pogromu došlo rovněž v Čechách roku 1098, o čemž se zmiňuje František Palacký:

„*Vybili r. 1098 židovské domy v Praze, sebrali z nich všechno cenné, včetně nářadí…*"[17]

Strachující se Židé se pak tajně stěhovali do Polska, do Uher a na Moravu. Kníže Břetislav však striktně nesouhlasil s tím, aby si s sebou brali jakýkoliv majetek, jak zaznamenal Kosmas[18]:

„*Bez groše přišli jste k nám, tedy bez groše táhněte, kam chcete…*"

Názory na to, zda by cizinci bylo usazení na českém území vskutku povoleno bezúplatně a zda lze zisk z úvěrového podnikání považovat za pracně nabytý, se mohou lišit. Faktem však zůstává, že předmětný majetek byl Židy získán v době, kdy byli ještě oficiálně osobně svobodní, a tudíž by jim měl patřit. Podle panovníka však náležel zemi, v níž jej nabyli, respektive králi samému. Tento argument se brzy prosadil a ve 13. století byl kodifikován v právních předpisech:

„*Jako osobně nesvobodní servi camerae regiae (otroci či služebníci královské komory, Kammerknechte) byli podřízeni přímo panovníkovi, a tak pozice, do níž byli tlačeni v předchozích staletích, byla nyní právně potvrzena…Panovník si činil na židy obdobné právo*

Dostupné z: https://zpravy.idnes.cz/zaoralej-izrael-navsteva-samo-kupec-zid-f0a-/zahranicni.aspx?c=A141105_115054_zahranicni_aha.

[13] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 13. ISBN 80-900895-4-2.

[14] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 15. ISBN 80-900895-4-2.

[15] KOSMAS: Kosmův letopis český s pokračováními kanovníka Vyšehradského a mnicha Sázavského. Přeložil V. V. Tomek, Praha: Nadání Františka Palackého, 1882, s. 109. Dostupné z: http://www.pdfknihy.maxzone.eu/books/kroniky/kosmuw_letopis_cesky.pdf.

[16] Zároveň byli Židé označeni za tzv. národ svědků, již měli být chráněni před násilím. Paradoxně se tak Židé stávali obětí těch, kteří samo sobě dali za úkol je chránit. Přesto se v ediktech mnohých papežů (Inocenc IV.), ale i některých panovníků (Přemysl Otakar II.) defenzivní snahy projevily.

[17] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 18. ISBN 80-900895-4-2.

[18] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 18. ISBN 80-900895-4-2.

jako například na horní podnikání, na ražbu mincí, na mostné, cestné a podle toho s nimi zacházel.“[19]

Na IV. lateránském koncilu r. 1215 byla potvrzena úplná segregace židovských obyvatel křesťanských zemí a bylo jim přikázáno nosit viditelné označení[20]. Křesťanům bylo zakázáno se se Židy přátelsky stýkat, hostit je a nechat se od nich hostit. Vzájemné intimní vztahy byly rovněž zapovězeny. Židé nesměli vlastnit půdu, zabývat se zemědělstvím a zaměstnávat křesťany. Ztratili také právo na sebeobranu. Živnost byla Židům zprvu zakázána zcela, později jim byl provoz některých řemesla v rámci ghetta[21] povolen.

Kromě těch náboženských zde hrály roli rovněž důvody ekonomické. Nově se rodící společenská vrstva – měšťanstvo – jednoduše potřebovala minimalizovat konkurenci. Hlavním zdrojem příjmů se tak Židům stal obchod s úroky, jejž křesťané provozovat nesměli[22].

Židovská politika v Evropě se ale lišila, a to nejen mezi dílčími státy, ale i v jejich rámci. Podle potřeb a nálad byly zákony utužovány, nebo mírněny. Čeští panovníci vedli židovskou politiku rafinovaně. Ani v českých zemích se Židé nevyhnuli různým projevům antisemitismu[23], ovšem soudě podle dostupných historických pramenů nezažívali zdaleka takový útlak jako jejich jižní či východní sousedé.

V Čechách platily zákony vztahující se k Židům vždy jen po doby vlády panovníka. Nový vladař pak stávající pravidla buď stvrdil, nebo pozměnil. Nejvýznamnějším dokumentem se tak stala *Statuta Judaeorum* vydaná roku 1278 Přemyslem Otakarem II., jež až do 18. století tvořila základ židovského zákonodárství v Čechách a na Moravě[24]. Třicet dva paragrafů vymezujících poměr Židů k vladaři a ke křesťanskému obyvatelstvu bylo v téměř nezměněné podobě akceptováno všemi Přemyslovými následovníky.

Židovská obec byla definována jako majetek koruny. Byla povinna platit králi daně a poskytovat mu půjčky. Na druhou stranu, jakýkoliv útok proti Židům a jejich majetku byl považován za napadení královské komory, což zásadně ovlivnilo trestní systém. Zákoník také stanovoval pravidla židovského obchodu s penězi. Část textu se rovněž zabývala judaismem a antisemitismem:

„*S odvoláním na buly Inocence IV. zakazovala Statuta nutit Židy usedlé v království ke křtu a odmítala paušální obviňování manipulace s lidskou krví a z rituálních vražd.*“[25]

2.2 Židovské zdroje

Mezi roky 965 a 966 vznikla na popud Córdobského chalífy rozsáhlá zpráva o Praze, první písemná zmínka o městě vůbec. Jejím autorem se stal židovský kupec a diplomat Ibrahim Ibn Jakúb Al-Isrá ilí at-Tartuší.

„*Zprávu o střední Evropě zachoval Ibrahim Ibn Jakúb, který se narodil v španělské Tortose, získal dobré vzdělání a uchytil se v Córdobě. Odtud ho chalífa vyslal do západní a střední Evropy, nevíme, zda jako diplomata nebo obchodníka, případně zda povolání obchodníka nebylo jen maskováním pro výzvědy poměrů na východě…*“

píše magistr Škvrňák z Masarykov univerzity opíraje se o řadu historických pramenů[26].

---

[19] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 22. ISBN 80-900895-4-2.

[20] plášť, kukla, čepice, špičatý klobouk s rolničkou, stuha ve vlasech apod.

[21] Zejména na venkově nebylo možné vytvořit oddělené ghetto. Vznikaly tak židovské ulice či osady. Privilegovaní jedinci (finančníci, lékaři, učenci) směli „hranice“ ghetta překračovat.

[22] Z hlediska křesťanství nebylo možné vydělávat na čase (úrok byl považován za poplatek za čas mezi půjčením a vrácením), protože čas nenáležel jim samým, ale Bohu.

[23] Byli označováni za původce moru, za vrahy křesťanských dětí a panen, za hanobitele hostie a traviče studní, byli násilím křtěni a hromadně vražděni (pogromy).

[24] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 23. ISBN 80-900895-4-2.

[25] PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 24. ISBN 80-900895-4-2.

Ibn Jakúb započal svoji cestu ve francouzském Boradeaux, odkud pokračoval přes město Utrecht k Polabským Slovanům (Obodrité), načež se v Magdeburku účastnil audience u samotného císaře Oty. Nejvýchodnějším bodem výpravy se pak Ibn Jakúbovi stalo „*největší město co do obchodu*“ - Praha.

Svou návštěvu Ibn Jakúb neopomenul zaznamenat[27]. Podrobná zpráva, dodnes čtenářsky zajímavá, by mohla, domnívám se, sloužit jako pracovní text ve výuce napříč předměty, a to hned z několika důvodů.

Zaprvé jde o nespornou výpovědní hodnota textu, jenž prozrazuje mnohé o stavu českých zemí na sklonku 10. století. Významnou roli hraje rovněž výjimečnost tématu i jeho zpracování. V období, kdy se české písemnictví teprve rodí a rozvinutější latinská či staroslověnská literatura nevěnuje světským záležitostem dostatečnou pozornost, se český živel stává stěžejním motivem logicky vystavěného textu napsaného osobitým autorským stylem vzniknuvším s přihlédnutím k estetickým i odborným potřebám čtenáře. Relace navíc zachycuje zdánlivě marginální poznatky, díky nimž však lze poukázat na starobylost některých typických slovanských (českých) symbolů a tradic:

„*Očima člověka z jiného kulturního prostředí zaznamenal (Ibn Jakúb) zdejší reálie, které by jinak zůstaly zapomenuté – zdejším kronikářům přišly tak samozřejmé, že je nebylo třeba popisovat.*“[28]

O samotné Praze diplomat prozrazuje:

„*Město Frága je vystavěno z kamene a vápna a je největším městem co do obchodu. Přichází sem z města Kráková Rusové a Slované se zbožím. A z krajin Turků muslimové, židé a Turci rovněž se zbožím a obchodními mincemi. Ti vyváží od nich otroky, cín a různé kožišiny. Jejich země je nejlepší zemí severu a nejzásobenější v potravinách. V městě Frága vyrábí se sedla, uzdy a tlusté štíty, kterých se užívá v těchto zemí.*“[29]

Praha byla ve své době centrem dálkového obchodu. Skrze město vedla významná obchodní cesta spojující Pyrenejský poloostrov s Hedvábnou stezkou. Největší výnosy pak přinášel obchod s otroky, díky němuž se Praha celosvětově proslavila.

Mnozí otroci byli přitom účelně získáváni během vojenských výprav v pomezí Polska a Ukrajiny. Ne nadarmo se proto Židé o Čechách i o místním jazyce zmiňují jako o zemi a řeči kanaánské. Hebrejci totiž běžně nahrazují zeměpisná a etnická pojmenování vhodnými výrazy biblickými. Zde se nechali inspirovat knihou Genesis, v níž je Kanaán nazván „*otrokem svých bratří*“[30]. Blíže se tématem zabýval proslulý jazykovědec Roman Jakobson:

„*…protože v I. knize Mojžíšově slovo „Kanaán“ vedle svého ethnického významu označuje i „otroka“, právě tak jako se ve středověkém germánsko-románském usu významově sdružovala slova Slavus „Slovan“ a sclavus „otrok“, je rovnice kanaánský — český dobře odůvodněna, a to tím spíše, že ve středověku pojmenování češtiny jazykem slovanským a české země zemí slovanskou nebylo nikterak neobvyklé…*“[31]

---

[26] ŠKVRŇÁK, Jan: *Relace Ibrahima Ibn Jakuba*. E-středověk [online]. 2010 [citováno 5. 12. 2017]. Dostupné z: http://www.e-stredovek.cz/view.php?cisloclanku=2010070001.

[27] Originál se bohužel nezachoval, nicméně v sedmdesátých letech 19. století byl v Istanbulu objeven rukopis *Knihy cest a poznání* slavného arabsko-španělského geografa Abú Obaida al-Bakríh. Součást Bakríh spisu pak tvořil text Jakúbův.

[28] ŠKVRŇÁK, Jan: *Relace Ibrahima Ibn Jakuba*. E-středověk [online]. 2010 [citováno 5. 12. 2017]. Dostupné z: http://www.e-stredovek.cz/view.php?cisloclanku=2010070001.

[29] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I.* Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.

[30] G, 9, 25.

[31] TYL, Zdeněk: *Řeč a písemnictví českých židů v době přemyslovské*. Naše řeč [online]. 1957, 40 [citováno 5. 12. 2017]. Dostupné z: http://nase-rec.ujc.cas.cz/archiv.php?lang=en&art=4545.

Důležitá je zejména závěrečná poznámka. Rovnítko mezi pojmy Slovan a Čech totiž používá i Ibrahím Ibn Jakúb. Je třeba chápat, že píše-li diplomat o Slovanech, myslím tím konkrétní slovanský národ a nikoli etnickou skupinu obecně. Jak Slovany (Čechy) charakterizuje?

„*Zvláštní je, že obyvatelé země Bújima jsou snědí, černých vlasů, zatímco světlý typ je u nich řídký… Slované se odívají do širokých oděvů, pouze manžety rukávů jsou úzké. Mezi Slovany jsou všeobecně rozšířeny dvě choroby, takže jen málokdo je jedné z nich ušetřen. Jsou to dva druhy vyrážek: spalničky (nebo spála) a vředy,*“[32]

Následující věta krásně dokresluje pověst o „mlékem a strdím oplývající“ krajině z pera českých kronikářů. Navíc židovský komentátor zachycuje ještě jeden český rys, a totiž lásku k hudbě:

„*Jejich nápojem i vínem je med…mají různé druhy strunných i dechových nástrojů. Délka jednoho jejich dechového nástroje obnáší více než dva lokte, strunový nástroj má osm strun a jeho spodní strana je plochá, nikoli vypouklá.*“[33]

Kupec se vyjadřuje rovněž k zoologii:

„*V … zemi se vyskytuje podivný pták, který je na hřbetě zelený a který opakuje všechno, co slyší z hlasů lidí a zvířat; někdy se ho podaří chytit a podnikají na něj lov. Ve slovanském jazyce se nazývá sbá. Kromě toho žije tak také divoký kur, který se nazývá slovansky tetrá. Má chutné maso a jeho hlas lze slyšet z vrcholů stromů na vzdálenost paprasangu[34] i dále. Jsou dva druhy: jeden černý a druhý pestrý, který je krásnější než páv…*“[35]

Jakkoliv bychom mohli Ibn Jakúba označit za vzdělaného světoběžníka, špaček a tetřev mu byli záhadou, což vykresluje český les jako oblast neprobádanou a cizincům jen těžko přístupnou. Z hlediska přírodovědných nauk, jejichž počátky jsou v českých zemích datovány do 14. století, lze považovat Ibn Jakúbův postřeh za cenné svědectví stvrzující přítomnost zmíněných druhů na našem území již v 10. století, tedy v období předvědeckém.

Zajímavý je rovněž pohled autora na hospodářsko-zemědělskou situaci v zemi:

„*Slované se pilně věnují zemědělství a výrobě věcí nutných pro obživu a převyšují v tom všechny ostatní národy severu. Sadbu provádějí ve dvou ročních obdobích, v létě a na jaře a mají dvojí žně. Nejvíce se pěstuje proso. Slované se vyhýbají požívání kuřat, protože se domnívají, že podporuje spalničky; avšak jedí hovězí maso a husy, které jim vyhovují…nevzniká hlad následkem nedostatku deště a z trvalého nahromadění vod. Sucho není u nich zhoubné, neboť nikdo, kdo tím je postižen, se jej nebojí pro dostatečnou vlhkost…*“[36]

Ibn Jakúb, zvyklý na teplé jižanské podnebí, také komentuje slovanskou zimu:

---

[32] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.

[33] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.

[34] Arabská středověká délková míra – 5,762 m.

[35] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.

[36] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.

„*Země Slovanů jsou nejstudenějších ze všech krajin. Největší mráz je u nich tehdy, kdy jsou noci v úplňku a dny jasné. V tu dobu vzrůstá mráz a tuhne led. Země tvrdne a všechny tekutiny zamrzávají, studně a prameny pokrývají se tvrdou korou, takže jsou nakonec jako kámen.*“[37]
Politickou situaci diplomat shrnuje s nadhledem. Kromě svého názoru cituje i slova arabského autora Al-Masúdího:
„*Slované jsou vcelku odvážní a stateční, a kdyby nebyli roztříštění na množství kmenů a oddělených skupin, žádný národ by je nezdolal silou…Slované bojují s Byzantinci, Franky, Lombarďany a jinými národy a tato válka je vedena se střídavým štěstím.*“[38]

3 PROLÍNÁNÍ JAZYKŮ

3.1 Čeština v hebrejských textech

Podle Johna Myhilla[39] podmiňují příslušnost k etnické skupině čtyři faktory, a to příbuzenství (rasa), náboženství (tradice), rodný jazyk a občanství. Diasporou poznamenaní Židé však až do nedávna dbali zejména na první dvě oblasti:
„*…přestože si ponechávali své náboženství a z něj vyplývající kulturní specifika, přijímali i některé kulturní prvky majoritních společností, včetně místních jazyků.*“[40]
Postupem času, stejně jako třeba latina či řečtina, tak začala hebrejština nabývat podoby jazyka uměle udržovaného. Zůstávala sice nadále jednotným dorozumívacím jazykem, byla však prosazována zejména v rámci komunikace písemné[41]. Židovská inteligence se proto brzy začala potýkat s problematikou překladu:
„ *... středověký učenec ... musel velmi často narážet na její nedostatečnost a nedokonalost*.“[42]
Nebylo možné přesně pojmenovat některé předměty denní potřeby, situace či fráze. Pražští židovští autoři se tak nechali inspirovat svými francouzskými kolegy a snažili se nedostatky překlenout díky tzv. glosám – pomocným jinojazyčným konstrukcím:
„*… středověké hebrejsky psané spisy… obsahují řadu slov, která autor hodnotil jako nesrozumitelné nebo nejednoznačné; proto je přeložil, někdy hned do několika cizích jazyků najednou, a/nebo jednoduše definoval*.“[43]
Tzv. glosy kanaánské pak mohou být považovány za první písemné doklady staré češtiny. Jedná se nejčastěji o jednoslovné výrazy inkorporované do hebrejských textů za pomoci spojení *bi-lᵊšon Kᵊnaʿan* neboli „v jazyce Kanaánu“[44], zpravidla zachycené hebrejským písmem:

[37] NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava_ibrahim_ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.
[38] Tamtéž.
[39] ULIČNÁ, Lenka: *Staročeské glosy v středověkých hebrejských rabínských textech*. Olomouc 2014, Disertační práce, UK Praha, Filosofická fakulta, Ústav Blízkého východu a Afriky.
[40] ULIČNÁ, Lenka: *Staročeské glosy v středověkých hebrejských rabínských textech*. Olomouc 2014, Disertační práce, UK Praha, Filosofická fakulta, Ústav Blízkého východu a Afriky.
[41] Židé v diaspoře neusilovali o její udržení a rovněž nebojovali o vytvoření jiného vlastního jazyka, jakkoliv se v průběhu let míšením hebrejštiny a lokálních jazyků takové specifické dialekty a výjimečně i samostatné jazyky (jidiš) vyvinuly.
[42] ULIČNÁ, Lenka: *Staročeské glosy v středověkých hebrejských rabínských textech*. Olomouc 2014, Disertační práce, UK Praha, Filosofická fakulta, Ústav Blízkého východu a Afriky.
[43] ULIČNÁ, Lenka: *Staročeské glosy v středověkých hebrejských rabínských textech*. Olomouc 2014, Disertační práce, UK Praha, Filosofická fakulta, Ústav Blízkého východu a Afriky.
[44] ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.

„*Celkem je dosud známo asi 170 lemmat nepropriálních kanaánských glos ve více než 350 dokladech v dílech vzniklých v 11. - 14. stol. (některé opisy jsou mladší).*“[45]
Jedná se o důležitý, byť dodnes jen málo prozkoumaný pramen poznání staročeštiny, neboť z daného období nejsou dochovány literární památky v češtině a jiných je jen velmi málo. Jako jeden z prvních vědců na nespornou hodnotu kanaánských glos poukázal Roman Jakobson:
„*Podle prof. Jakobsona se „kanánské“ glosy opírají o mluvu pražského měšťanstva a tím by snad bylo možno vyložit i některé odchylky od jazyka českého písemnictví té doby, které bylo — alespoň v první fázi svého vývoje — převážně záležitostí šlechty*.“[46]
Kanaánské glosy se nacházejí například v dílech autorů Abrahama Chládka a jeho žáka Izáka Ór Zárua, příslušníků pražské židovské obce[47]. Chládkovy texty jsou dnes považovány za jeden z nejstarších dochovaných mluvnických rozborů jazyka, přičemž prostřednictví českých glos osvětluje zákonitosti gramatické (slovní druhy, rod, způsoby, časy apod.). U Izáka, který hovoří o češtině jako o „*našem jazyce*“, jde pak o cenný materiál lexikální, díky němuž bylo zapotřebí přehodnotit dosavadní názor na stáří a vývoj některých českých slov.
Fakt, že se pražští Židé dorozumívali česky, lze doložit například sobotní rozmluvou při nákupu masa zachycenou Izákem Ór Zarurou. Úryvek rovněž slouží jako podklad pro zkoumání českých (pražských) reálií[48].
V současnosti zkoumá kanaánské glosy podrobně doktorka Lenka Uličná. Podle ní se mezi glosami objevují jak výrazy dnes již dobře známé, tak rovněž slova, jejichž smysl nebyl dosud odtajněn případně taková, která nejsou doložená jinými zdroji.
Jakkoliv byly glosy zaznamenávány hebrejským písmem, známým absencí vokalických znaků, čeští autoři byli schopni tuto překážku obejít s využitím doplňujícího samohláskové značení – punktace (umístěné pod grafémem) a tzv. matres lectionis – pomocných grafémů. Nejstarší české souvětí tak možná zní: „*Toliko budi státý a neměj s'a iné péci*“[1] a nalezneme jej v opise komentáře Josefa Kary, francouzského biblického exegeta 12. století.

3.2 Hebraismy a idišismy v češtině

Profesor Jakobson nadále upozorňoval na úlohu, již sehrála (staro)čeština ve vývoji jidiš. Jidiš je jediný vskutku svébytný židovský jazyk vzniknuvší v 10. století v diaspoře. Vychází pravděpodobně ze středohornoněmčiny, nicméně až 20% slovní zásoby jidiš tvoří výrazy hebrejské a aramejské a 15% výrazy slovanské[49]. Modlitba *Almechtiger*, první souvislý text v jidiš, byla vydána v Praze roku 1526. Židé v českých zemích používali jidiš pro běžnou komunikaci až do 18. století, kdy byli v důsledku josefínských reforem nuceni přejít k němčině[50].

---

[45] ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.
[46] TYL, Zdeněk: *Řeč a písemnictví českých židů v době přemyslovské*. Naše řeč [online]. 1957, 40 [citováno 5. 12. 2017]. Dostupné z: http://nase-rec.ujc.cas.cz/archiv.php?lang=en&art=4545.
[47] Avraham ben Azriel zvaný Chládek stál ve 13. století v čele pražské obce a je autorem rozboru synagogální liturgie Arugat ha-bosem (Záhonek balzámu), jeho žák Jischak ben Moše napsal obsáhlé dílo Or zarua (Světlo zaseté), komentář k talmudským rituálním předpisům.
[48] Úryvek včetně odborného výkladu lze najít zde: ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.
[49] ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.
[50] Dáno Dvorským patentem z července 1787. Každý židovský otec, poručník či svobodný muž si musel zvolit pro sebe a svou rodinu německé rodinné jméno a každý jednotlivec německé jméno osobní, dále museli Židé vést všechny úřední záznamy (matriky, obchodní knihy) v němčině a byli nuceni ji používat rovněž při jednání s úřady. Představeným židovské obce pak směl být jen absolvent německé školy. PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, s 92. ISBN 80-900895-4-2.

Česká slovní zásoba byla obohacena mnoha hebraismy a idišismy. Slova původem hebrejská pronikla do češtiny buď přímo přes jejich židovské uživatele, nebo zprostředkovaně skrze křesťanskou terminologii a jidiš. Velká část slov již zdomácněla (sobota, tábor, balzám, karban, moloch, onanie, satan, pižmo). Mnohé výrazy zůstávají spojeny s Biblí, případně s judaismem (aleluja, ámen, mesiáš, paškál, golem, chanuka, košér, korál, mesiáš, rabín, safír, Talmud, Tóra). Idišismy přejaté z německého argotu mají silnou negativní konotaci (čachrovat, melouch, šmírák, pajzl, šoufl, šábnout), slova vypůjčená přímo z jidiš bývají také expresivně zbarvená (mešuge, hala bala), případně se pojí k židovskému prostředí (jarmulka, kipa, štetl, šoulet, bejgl). Mnohá spojení si čeští mluvčí foneticky či gramaticky adaptovali (pádové zapojení, odvozeniny), případně jde o kalky a poloklaky (okurková sezóna)[51].
Povolená délka příspěvku nedovoluje pokračovat, nicméně doufám, že pro představu o vzájemném prolínání obou kultur text postačil a stejně tak věřím, že se práce (i její případná pokračování) stanou inspirací facilitátorům.

Použitá literatura

1. KOSMAS: Kosmův letopis český s pokračováními kanovníka Vyšehradského a mnicha Sázavského. Přeložil V. V. Tomek, Praha: Nadání Františka Palackého, 1882, s. 109. Dostupné z: http://www.pdfknihy.maxzone.eu/books/kroniky/kosmuw_letopis_cesky.pdf.
2. *MŠMT ČR* [online]. Copyright © [cit. 24.05.2017]. Dostupné z: http://www.msmt.cz/uploads/O21/O211/katalogy_zkousek_k_MZ/Katalog_pozadavku_od_2018_z_CJL.pdf.
3. NOVÁK, Jakub: *Zpráva Ibráhíma ibn Jákúba o Slovanech a říši Boleslava I*. Aba.wz [online]. 2005 [citováno 5. 12. 2017]. Dostupné z: http://aba.wz.cz/zprava _ibrahim_ ibn_jakuba_o_slovanech.php. Převzato z knihy Dějiny českého státu v dokumentech od Zdeňka Veselého. VESELÝ, Zdeněk. *Dějiny českého státu v dokumentech*. Praha: Professional Publishing, 2012. ISBN 978-80-7431-064-5.
4. PĚKNÝ, Tomáš: *Historie Židů v Čechách a na Moravě*, vyd. 1. Praha: Sefer,1993, 430 s. ISBN 80-900895-4-2.
5. Rámcové vzdělávací programy, Národní ústav pro vzdělávání. *Národní ústav pro vzdělávání* [online]. Copyright © [cit. 24. 05. 2017]. Dostupné z: http://www.nuv.cz/cinnosti/kurikulum-vseobecne-a-odborne-vzdelavani-a-evaluace/ramcove-vzdelavaci-programy?lang=1.
6. ROTREKL, Zdeněk. Literatura – vězení – doba. In: *Literatura vězení exil*, vyd. 1. Praha: Nadace Readers International, 1997, s. 23. ISBN 80-901813-3-3.
7. ŠKVRŇÁK, Jan: *Relace Ibrahima Ibn Jakuba*. E-středověk [online]. 2010 [citováno 5. 12. 2017]. Dostupné z: http://www.e-stredovek.cz/view.php?cisloclanku=2010070001.*prehled* [online]. Copyright © [cit. 24.05.2017]. Dostupné z: http://zpd.nuov.cz/RVP_4_vlna/RVP_8244M01_Hudba_8244P01_Hudba.pdf.
8. TYL, Zdeněk: *Řeč a písemnictví českých židů v době přemyslovské*. Naše řeč [online]. 1957, 40 [citováno 5. 12. 2017]. Dostupné z: http://nase-rec.ujc.cas.cz/archiv.php?lang=en&art=4545.
9. ULIČNÁ, Lenka: *Staročeské glosy v středověkých hebrejských rabínských textech*. Olomouc 2014, Disertační práce, UK Praha, Filosofická fakulta, Ústav Blízkého východu a Afriky. Dostupné z: https://dspace.cuni.cz/bitstream/handle/20.500.11956/72915/IPTX_2010_1_11210_0_134677_0_103568.pdf?sequence=1.

[51] ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.

10. ULIČNÁ, Lenka: Kenaanské glosy. Nový encyklopedický slovník češtiny [online]. 2017 [citováno 5. 12. 2017]. Dostupné z: https://www.czechency.org/slovnik/KENAANSK%C3%89%20GLOSY.

Kontaktní údaje
Mgr. Markéta Zvolánková
Západočeská univerzita v Plzni, Fakulta pedagogická
Veleslavínova 42, 301 00 Plzeň
Tel: 724 746 103
email: zvolanko@kcj.zcu.cz

IKT JAKO NÁSTROJ PRO PODPORU KOGNITIVNÍCH FUNKCÍ OSOB TRPÍCÍCH ALZHEIMEROVOU CHOROBOU

ICT AS A TOOL TO SUPPORT THE COGNITIVE FUNCTION OF PEOPLE WITH ALZHEIMER'S DISEASE

Michal Vostrý, Zdeněk Čeřovský

Abstrakt

Příspěvek se zabývá popisem rozvoje kognitivních funkcí u osob s demencí popř. jinou kognitivní poruchou. Zaměříme-li se na samotnou demenci, tak jejím dominantním typem je Alzheimerova choroba, která postihuje obvykle jedince ve věku nad 65 let. Avšak jsou situace, kdy touto chorobou onemocní i osoby mladší. Ze všeobecně dostupných statistik je patrný fakt, že počet těchto osob neustále narůstá. Dostáváme se tedy do fáze, kdy je nutné tuto problematiku řešit a to co možná nejdříve. K tomu nám mohou posloužit tzv. pomáhající profese (ergoterapie, speciální pedagogika, andragogika, sociální pedagogika atp.), které mohou při zaměření na tyto klienty poskytnout dostatečnou stimulaci a aktivizaci. V příspěvku se zaměřujeme na samotný proces rehabilitace jak z pohledu pedagogické rehabilitace, tak z pohledu léčebné, a to v rámci ucelené (komprehenzivní) rehabilitace.

Klíčová slova: *Alzheimerova choroba, edukace seniorů, ergoterapie, rozvoj kognitivních funkcí, využití moderních technologií*

Abstract

The paper describes the development of cognitive functions in people with dementia respectively. another cognitive disorder. If we focus on the actual dementia and the dominant form of Alzheimer's disease, which affects individuals generally over 65 years. However, there are situations where this disease ill and younger. From generally available statistics indicate that the number of such persons is constantly growing. Thus we get to a stage where it is necessary to address this issue as soon as possible. To do so we can serve. Helping Professions (occupational therapy, special education, adult education, social pedagogy), which may, in focusing on these clients to provide adequate stimulation and activation. In this paper, we focus on the process of rehabilitation both in terms of pedagogical rehabilitation and in terms of treatment within an integrated (comprehenzive) rehabilitation.

Key words: *Alzheimer's disease, elderly education, occupational therapy, development of cognitive functions, use of modern technologies*

1 ÚVOD

Kognitivní deficit je užívaný termín, který označuje zhoršení kognitivních funkcí (paměť, orientace, vizuospaciální funkce apod.), oproti zdravému jedinci popř. oproti stavu klienta před vznikem určité choroby popř. před vznikem nějakého úrazu, a to nejčastěji v oblasti hlavy. Stejně tak u klienta zvyšuje riziko výskytu depresivních stavů poruch chování, na které jsme se v tomto příspěvku zaměřili. Pokud se budeme orientovat na jedince, kteří trpí určitou formou demence (nejčastěji pak Alzheimerovou chorobou), mluvíme obvykle o lidech v seniorském věku. Je důležité nezaměňovat zhoršování paměti či jiných složek kognitivních funkcí s klasickým procesem stárnutí. Z lidského vývoje je patrné, že člověk během stárnutí postupně začíná strádat, a to jak v oblasti svalové síly, či funkčnosti samotných orgánů

lidského těla, tak i po stránce kognitivní. Zhoršuje se paměť a také orientace. Pokud jedinec je i tak schopen fungovat samostatně a zvládat běžné denní aktivity, nelze plnohodnotně mluvit o demenci, avšak to můžeme chápat jako předzvěst toho, že se demence u daného jedince může vyvíjet. Již v této fázi je ideální jedince kognitivně natolik stimulovat, abychom aspoň zpomalili progresi samotné demence (Zajdl, 2016). V příspěvku dále budeme popisovat výsledky diplomové práce, která se této problematice věnovala. Pro intervenci bylo využito herní konzole, která rozvíjela jak kognitivní funkce, tak samotnou motoriku klientů (Vostrý, 2016). Již samotné moderní technologie (dále jen ICT) lze chápat jako nástroj, který nám v boji s touto problematikou může velmi pomoci a co více, může nám také usnadnit práci. Využívání ICT je v dnešním světě věcí již zcela běžnou. Většina z nás si nedovede představit svůj život bez mobilního telefonu, tabletu, počítače či jiných produktů (Tomczyk, 2015). Každý z nás se také podívá na sociální sítě, pravidelně využívá elektronické komunikace nebo telefonuje. V rámci diplomové práce a tím i navazující disertační práce jsme si vytyčili za cíl zpřístupnit i tyto technologie seniorům trpícím demencí nebo jinou kognitivní poruchou (možno využití i u osob s CMP – cévní mozkovou příhodou).

2 METODOLOGIE VÝZKUMU

Jedním z mála výzkumů, které se této problematice věnovaly, je výzkum popisující videohry, jež mohou pomáhat osobám s poruchou kognitivních funkcí. V tomto příkladu vystupuje seniorka ve věku 103 let, která v rámci rozvoje kognitivních funkcí využila hry bowling. V této hře simulovala reálnou hru, avšak její pohyb byl snímán pohybovým senzorem Kinect a její lokomoce a činnosti se projevovaly na obrazovce. Autor poukazuje na fakt, že pokud nebudou dostatečně stimulovány jejich buňky, budou se kognitivní funkce zhoršovat (Iorfino, 2013). Při proběhlém výzkumu, kde jsme se zaměřili na rozvoj kognitivních funkcí, jsme využili standardizovaného testu, který je označován jako Dotazník pro poruchy chování u Alzheimerovy choroby. Tento poměrně dobře situovaný dotazník pomocí jednoduchých otázek rozpozná, zda u jedince dochází či nedochází ke změnám chování. Klienty jsme tímto dotazníkem otestovali při vstupním i výstupním vyšetření a následně proběhla komparace výsledků mezi vstupním a výstupním hodnocením (Vostrý a Dončevová, 2016). K samotné intervenci jsme využili herní konzole s pohybovým senzorem a volně dostupné komerční hry Dr. Kawashima's body and brain. Tato hra obsahuje logické hry, které podporují nejen kognitivní funkce, ale také rozvoj hrubé motoriky jedince. Jelikož pro výzkum byl zvolen relativně malý počet probandů, pro vyhodnocení jsme využili neparametrické statistické metody, která nevyžaduje normální (Gaussovské) rozložení dat. Pro statistickou analýzu byla vypočtena diference mezi vstupním a výstupním hodnocením. Samotné hodnoty diference mezi skupinami byly následně mezi sebou porovnávány statistickým testem Mann-Whitney a to na hladině významnosti $\alpha = 0{,}05$. Závěrem této kapitoly již navážeme na výsledky samotné práce, avšak je důležité zmínit, že výsledky analýzy komparovaných dat byly následně vyobrazeny v grafu rozložení hustoty dat, kde na ose X uvádíme výši diference měřeného parametru (mezi vstupním a výstupním testováním) a na ose Y uvádíme hustotu rozložení dat vztahující se k příslušné hodnotě výše samotné diference na ose X. Hodnota testového kritéria testu Mann-Whitney platná pro danou analýzu (W) a hodnota pozorované hladiny významnosti daného testového kritéria (P), (Vostrý, 2016). Níže uvádíme orientační výsledky diplomové práce, na kterou dále navazujeme disertační prací. Shrnutí v tomto případě obsahuje vzájemné porovnání experimentální a kontrolní skupiny. Tyto výsledky lze chápat jako potencionální předvýzkum k disertační práci, která se zabývá čistě edukací a rozvojem osob s Alzheimerovou chorobou pomocí ICT. Dále bychom se chtěli ubírat cestou odlišné metodologie, která bude monitorovat konkrétního jedince. Tento výzkum se nazývá v anglickém jazyce single case research designe. Tato forma nám umožní lépe pracovat s vybraným probandem a také ho pravidelně testovat. Výsledky pravidelných testů budeme

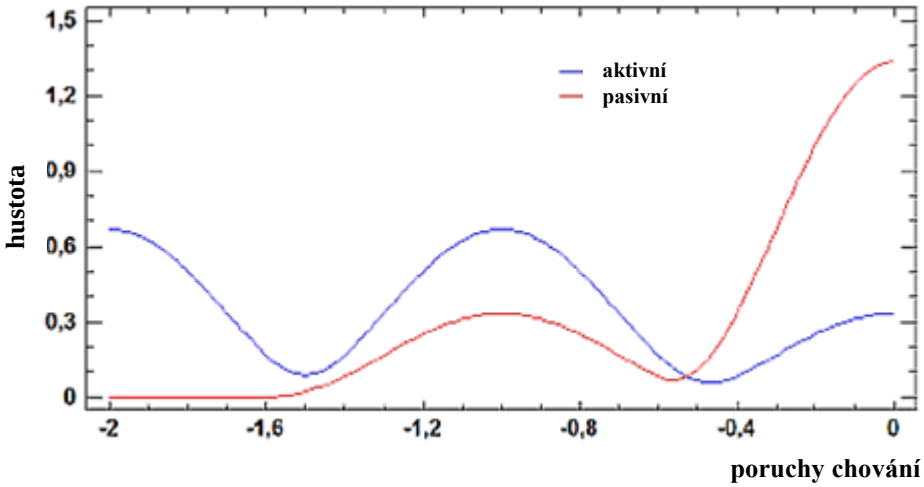
zaznamenávat do grafu, kde následně uvidíme, zda intervence měla plynulé zlepšení v testovaných oblastech nebo u klienta výsledky pouze kolísaly. Tento výzkum nám tak umožňuje pracovat s menším výzkumným vzorkem, zato intervence bude o to více intenzivnější. Dle Bartoše (2010) můžeme stanovit tři body, které charakterizují stupeň závažnosti demence. V prvním stupni musíme prvotně rozlišit, zda se jedná o demenci popř. delirium. K tomu využíváme standardizovaných škál a testů (MMSE, ACE-R atp.). Ve druhém bodě je pak diagnostikována samotná demence. V této fázi se uplatňuje spíše medicína, jelikož je nutné rozpoznat, zda se nejedná o možnou léčitelnou příčinu vzniklého deficitu. Odborníci využívají k diagnostice např. EKG, počítačovou tomografii nebo magnetickou rezonanci. Ve třetí fázi se pak určuje již samotný stupeň demence (lehký, střední a těžký). Stanoven je na základě klinického obrazu a standardizovaných testů či škál. Pokud se v příspěvku věnujeme demenci, je důležité aspoň stručně charakterizovat nejrozsáhlejší typ z nich. Mluvíme-li o Alzheimerově chorobě, pak mluvíme o demenci, která se vyskytuje až v 60 % všech případů. Nemoc je poměrně dobře definována patologickými nálezy, které jsou společné pro všechny postižené jedince. Avšak je důležité brát ohled na individuální faktory, mezi které řadíme dobu vzniku, rychlost progrese či jiné klinické odchylky (Fišar, 2009). Typické změny nacházíme na mozku, kde se objevují tzv. senilní plaky. Ty obsahují škodlivou bílkovinu (beta-amyloid), která se ukládá na stěnách mozkových cév. Čím více je takto jedinec postižen, tím více dochází ke zhoršování kognitivních funkcí. Váha mozku takto zasaženého jedince je obvykle redukována pod 900 g (norma je 1300 g u mužů a 1400 g u žen). Plnohodnotně můžeme obecně demence diagnostikovat až po úmrtí (Jirák a Koukolík, 2004).

3 VÝSLEDKY VÝZKUMU

Samotná intervence probíhala po dobu půl roku, pravidelně 1x týdně a to zhruba po dobu 30 minut na jednoho probanda. Uvádíme zde příkladem výsledky mezi experimentální (aktivní účast na naší intervenci - A) a kontrolní (pasivní účast na naší intervenci – P) skupinou. Tabulka č. 1 popisuje výsledky, které jsou zaměřené na Dotazník pro poruchy chování u osob s Alzheimerovou chorobou – těžkého typu. Při porovnání s výstupem je viditelný rozdíl, kdy aktivní skupina s výjimkou jediného probanda dosáhla na vyšší bodové hodnocení, a to až o 3 body, zatímco pasivní skupina zaznamenala propad, a to až o 9 bodů. Z komparace vypočtených diferencí mezi výsledky výstupní a vstupní diagnostiky vyplývá statisticky významný rozdíl ve výsledcích Dotazníku pro poruchy chování, a to ve prospěch aktivní skupiny (W = 0 P = 0,00558). Hustotu rozložení diference ukazuje graf č. 1, (Vostrý, 2016).

VSTUP		**VÝSTUP**		**VÝSTUP-VSTUP**
Skupina	**Počet bodů**	**Skupina**	**Počet bodů**	**Diference**
A	14	**A**	12	-2
A	13	**A**	11	-2
A	13	**A**	12	-1
A	13	**A**	12	-1
A	10	**A**	10	0
P	12	**P**	11	-1
P	12	**P**	12	0
P	13	**P**	13	0
P	11	**P**	11	0
P	10	**P**	10	0

Tab. 1 – diference mezi vstupním a výstupním testováním: Dotazník pro poruchy chování – u osob s demencí těžkého typu



***Graf 1** – Rozložení diference mezi vstupním a výstupním testováním*

4 ZÁVĚR

Závěrem je potřeba na základně orientačních výsledků a připravovaného výzkumu podotknout, že pravidelnou aktivizací lze zpomalit nebo mírně vylepšit stav probandů v testovaných oblastech. Nelze naplno tvrdit, že díky naší intervenci došlo ke zlepšení. Jsou zde faktory, které mohou mít na výsledcích svůj nemalý podíl. Rozhodně se jedná např. o vliv počasí na náladu probandů apod. Svou roli zde hraje mimo jiné i to, jak se v onen testovací den probudili, jak se cítili. Mezi další možnosti, které se v praxi využívají, řadíme také např. kinezioterapii. Jedná se o pohybová cvičení v léčbě psychických poruch.

Nejedná se pouze třeba o schizofrenii, ale také o demence, kde Hátlová (2003) popisuje jednoduché i náročnější cviky, které se u tohoto typu klientů provádějí. Na základě pravidelného cvičení dosahuje i autorka pozitivních výsledků u osob u demencí lehkého a středního typu. Nejde jen o zlepšení rozvoje motoriky, ale také o to, aby si klienti uvědomovali více své tělo a možnosti, které jim nabízí. Jak jsme zmiňovali výše, problémem osob s demencí není jen narušení paměti, ale také lehčí a následně těžší dezorientace místem, časem a svou osobou. I na tuto problematiku jsme při výzkumu mysleli. V rámci využití her jsme trénovali kognitivní funkce a samotnou motoriku.

Hry byly voleny tak, aby trénovaly jak pozornost, tak orientaci či paměť. I nadále se tomuto výzkumu budeme věnovat, nyní již individuálnější formou, která nám nabídne zase jiné výsledky a jiný náhled na řešení této problematiky (Vostrý a Dočevová, 2017).

Použitá literatura

1. BARTOŠ, A. a M., HASALÍKOVÁ, *Poznejte demenci správně a včas: příručka pro klinickou praxi.* 1. vyd. Praha: Mladá fronta, 2010. ISBN 978-80-204-2282-8x
2. FIŠAR, Z., *Vybrané kapitoly z biologické psychiatrie*. 2., přeprac. a dopl. vyd. Praha: Grada, 2009. ISBN 978-80-247-2737-0.
3. HÁTLOVÁ, B., *Kinezioterapie: pohybová cvičení v léčbě psychických poruch*. 2. přeprac. vyd. Praha: Karolinum, 2003. ISBN 80-246-0719-0
4. IORFINO, M., (2013). *Video games may help improve elderly´s cognitive function.* South Abington, Township,
5. JIRÁK, R. a F., KOUKOLÍK, *Demence: neurobiologie, klinický obraz, terapie.* 1. vyd. Praha: Galén, 2004. ISBN 80-7262-268-4.
6. TOMCZYK, Ł., *Vzdělávání seniorů v oblasti nových médií*. Praha: Asociace institucí vzdělávání dospělých ČR, 2015. ISBN 978-80-904531-9-7.

7. VOSTRÝ, M. a L., DONČEVOVÁ, *Trénování pozornosti a orientace u osob s Alzheimerovou chorobou – lehkého typu, pomocí ICT.* Liečreh: rehabilitácia 1, 2017. ISSN 0375-0922.
8. VOSTRÝ, M. a L., DONČEVOVÁ, *Trénování paměti v ergoterapii pomocí herní konzole u lehkého typu demence.* In: Sociálno-zdravotnícké spectrum, 2016. ISSN 1339-2379.
9. VOSTRÝ, M., *Efektivita edukačních intervencí u osob s Alzheimerovou chorobou.* (Diplomová práce), 2016. Ústí nad Labem: FZS UJEP.
10. ZAJDL, J., *Informační technologie a senioři, rozdílné možnosti v přístupu k informačním technologiím a k informační výchově v ČR a ve Spojených státech amerických (stát Colorado).* (Diplomová práce), 2016. Masarykova univerzita, Filozofická fakulta,

Kontaktní údaje

Mgr. et Mgr. Michal Vostrý
Univerzita Jana Evangelisty Purkyně v Ústí nad Labem, Fakulta zdravotnických studií
Velká Hradební 13, 400 96 Ústí nad Labem
Tel: + 420 721 282 123
email: Michal.Vostry@ujep.cz

MODERNÍ TECHNOLOGIE JAKO PROSTŘEDEK V BOJI PROTI DEPRESIVITĚ U OSOB TRPÍCÍCH DEMENCÍ

MODERN TECHNOLOGY AS A MEANS OF COMBATING DEPRESSION IN PEOPLE WITH DEMENTIA

Michal Vostrý

Abstrakt
Příspěvek je zaměřen na depresivní stavy osob, které trpí určitou formou demencí. Pro výzkum jsme využili herní konzole a klasických postupů ergoterapie a speciální pedagogiky. Vytvořili jsme pro klienty jakýsi edukační proces, který spočíval v osvojení si moderních technologií a následnou spolupráci s těmito možnostmi. Ve výzkumu jsme sledovali více oblastí, které jsme testovali příslušným standardizovaným testem. Zde prezentujeme výsledky pro osoby trpící středním typem demence pomocí Geriatrické škály deprese. Z výsledků je tak patrné, že experimentální skupina dosahovala lepších výsledků po intervenci, než skupina kontrolní.
Klíčová slova: *demence, deprese, edukace, edukace seniorů, ergoterapie, ucelená rehabilitace*

Abstract
The paper focuses on the depressive states of people who suffer from some form of dementia. For research, we used the game console and classical practices of ergotherapy and special pedagogy. We created for our clients a sort of educational process that consisted in the acquisition of modern technologies and the subsequent cooperation with these possibilities. In the research, we studied multiple areas that we tested with the appropriate standardized test. Here we present the results for middle dementia patients using the Geriatric Depression Scale. The results show that the experimental group achieved better results after the intervention than the control group.
Key words: *dementia, depression, education, elderly education, ergotherapy, comprehensive rehabilitation*

1 ÚVOD

Alzheimerova choroba je v základním popisu neurodegenerativní onemocnění, které je doprovázeno atrofií mozku. Mozek tak ztrácí na váze (váha je redukována pod 900 g oproti normálnímu stavu). V mozkové kůře se tak objevují tzv. senilní plaky, které jsou způsobeny nadměrným usazováním škodlivé bílkoviny s názvem beta-amyloid. Čím více takovýchto plaků jedinec má, tím horší je kognitivní deficit (Kumar et al. 2007). V dnešní době se tak tato problematika stává velmi častěji diskutovanou a objevují se nové přístupy, které se snaží alespoň zpomalit samotnou progresi onemocnění. Již první příznaky by nás měly varovat a donutit nás ke zvolení vhodné aktivity. Na jedincích si všímáme občasného zapomínání a mírné zmatenosti, nejedná se o závažné stavy, ale již tento fakt nás upozorňuje na možný rozvoj Alzheimerovy choroby (Topinková 2005). Čím více postupuje progrese, tím se stav klienta zhoršuje a samotná intervence je pak mnohem více náročná (Vostrý a Dončevová 2016). Vzdělávání seniorů je v dnešní době směřováno k univerzitám třetího věku (dále jen U3V). V těchto institucích dochází např. k rozvoji technologické gramotnosti apod. Mnohdy se učí jak zacházet s počítačem a jaké jsou jeho výhody a také nevýhody. Skupina osob s Alzheimerovou chorobou je však opomíjena, přitom v počátečním stádiu lze klienty

pravidelně aktivizovat a podpořit tak strádající kognitivní funkce (Tomczyk 2015). Ruku v ruce pak s touto problematikou u klientů pozorujeme tak depresivní stavy, které razantně mění postup rehabilitace. Prioritním důvodem je tak negativní ladění klienta, smutek, plačtivé stavy a odmítání byť jen klasické konverzace. I s tímto stavem se v rámci ucelené rehabilitace musíme potýkat. Je pro nás nezbytné nejen pracovat s degenerativním onemocněním, jakým Alzheimerova choroba je, ale také s vedlejšími problémy, kterými klient disponuje. Otázkou k zamyšlení v úvodu může být, co vyvolává onen stav? Může to být přirazeno k onemocnění, ale také k prostředí ve kterém se klient nachází. Mnohdy je takto postižený člověk uzavřen na oddělení, bez větších aktivit a pobytu na čerstvém vzduchu. Dlouhodobým odmítáním této potřeby tak klient může upadat do depresivních nálad.

2 METODOLOGIE VÝZKUMU

V tomto příspěvku poukazujeme na možnosti ovlivnění depresivity pomocí moderních technologií a klasických postupů ergoterapie. Jedná se o jakýsi edukační proces, který je s daným klientem realizován. Z počátku poukážeme na vybraný výzkum, který se této problematice věnoval, jedná se o výzkum popisující videohry, jež mohou pomáhat osobám s poruchou kognitivních funkcí. V tomto příkladu vystupuje seniorka ve věku 103 let, která v rámci rozvoje kognitivních funkcí využila hry bowling. V této hře simulovala reálnou hru, avšak její pohyb byl snímán pohybovým senzorem Kinect a její lokomoce a činnosti se projevovaly na obrazovce. Autor poukazuje na fakt, že pokud nebudou dostatečně stimulovány jejich buňky, budou se kognitivní funkce zhoršovat (Iorfino, 2013). Při proběhlém výzkumu, kde jsme se zaměřili na rozvoj kognitivních funkcí a dále pak na ovlivnění depresivity, jsme využili standardizovaného testu, který je označován jako Geriatrická škála deprese. Tato škála pokládá jednoduché otázky a hodnotí stav klienta a jeho úroveň depresivity od normy po těžký stav. K samotné intervenci jsme využili herní konzole s pohybovým senzorem a volně dostupné komerční hry Dr. Kawashima's body and brain. Tato hra obsahuje logické hry, které podporují nejen kognitivní funkce, ale také rozvoj hrubé motoriky jedince. Jelikož pro výzkum byl zvolen relativně malý počet probandů, pro vyhodnocení jsme využili neparametrické statistické metody, která nevyžaduje normální (Gaussovské) rozložení dat. Pro statistickou analýzu byla vypočtena diference mezi vstupním a výstupním hodnocením. Samotné hodnoty diference mezi skupinami byly následně mezi sebou porovnávány statistickým testem Mann-Whitney a to na hladině významnosti $\alpha = 0,05$. Závěrem této kapitoly již navážeme na výsledky samotné práce, avšak je důležité zmínit, že výsledky analýzy komparovaných dat byly následně vyobrazeny v grafu rozložení hustoty dat, kde na ose X uvádíme výši diference měřeného parametru (mezi vstupním a výstupním testováním) a na ose Y uvádíme hustotu rozložení dat vztahující se k příslušné hodnotě výše samotné diference na ose X. Hodnota testového kritéria testu Mann-Whitney platná pro danou analýzu (W) a hodnota pozorované hladiny významnosti daného testového kritéria (P), (Vostrý, 2016).

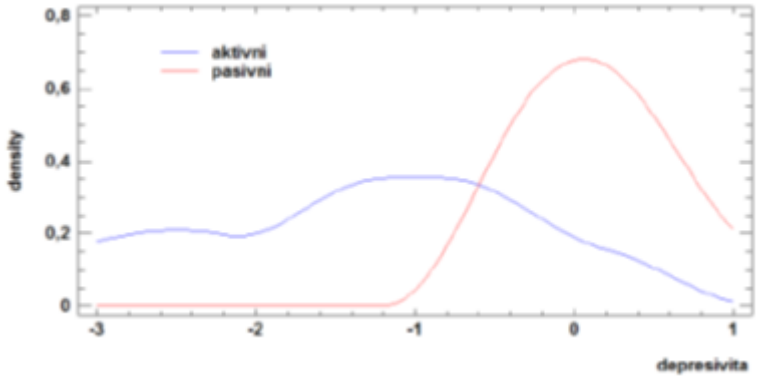
3 VÝSLEDKY VÝZKUMU

Samotná intervence probíhala po dobu půl roku, pravidelně 1x týdně a to zhruba po dobu 30 minut na jednoho probanda. Uvádíme zde příkladem výsledky mezi experimentální (aktivní účast na naší intervenci - A) a kontrolní (pasivní účast na naší intervenci – P) skupinou. Tabulka č. 1 popisuje výsledky, které jsou zaměřené na Geriatrickou škálu deprese u osob s Alzheimerovou chorobou – středního typu. Při porovnání s výstupem je viditelný rozdíl, kdy aktivní skupina s výjimkou jediného probanda dosáhla na vyšší bodové hodnocení, a to až o 3 body, zatímco pasivní skupina zaznamenala propad, a to až o 9 bodů. Z komparace vypočtených diferencí mezi výsledky výstupní a vstupní diagnostiky vyplývá statisticky

významný rozdíl ve výsledcích Geriatrické škály deprese, a to ve prospěch aktivní skupiny (W = 0 P = 0,00558). Hustotu rozložení diference ukazuje graf č. 1, (Vostrý, 2016).

VSTUP			VÝSTUP			VÝSTUP-VSTUP
Skupina	**Počet bodů**	**Forma**	**Skupina**	**Počet bodů**	**Forma**	**Diference**
A	11	mírná	**A**	9	mírná	-2
A	12	mírná	**A**	11	mírná	-1
A	13	těžká	**A**	10	těžká	-3
A	11	mírná	**A**	11	mírná	0
A	9	mírná	**A**	8	mírná	-1
P	14	těžká	**P**	14	těžká	0
P	12	mírná	**P**	12	mírná	0
P	9	mírná	**P**	9	mírná	0
P	10	mírná	**P**	11	mírná	1
P	11	mírná	**P**	11	mírná	0

Tab. 1 – diference mezi vstupním a výstupním testováním: Geriatrická škála deprese – u osob s demencí středního typu (zdroj: vlastní)



Graf 1 – Rozložení diference mezi vstupním a výstupním testováním Geriatrické škály deprese (zdroj: vlastní)

4 ZÁVĚR

Závěrem je důležité zmínit, že nemusí vždy být voleny podobné metody. Už samotné navázání kontaktu s klientem a poskytnutí mu základní možnosti komunikace může mít vliv na samotný stav klienta a tím i na depresivní stavy. Možností jak pracovat s těmito klienty je tak velké množství. Ergoteterapie jako taková má své pevné místo právě u tohoto typu klientů a využívá k tomu pestrou škálu možností, jak rehabilitovat kognitvní funkce. Lze také využívat možností jako jekinezioterapii. Jedná se o pohybová cvičení v léčbě psychických poruch. Nemusí se tak jednat pouze o schizofrenii, ale také o demence, kde Hátlová (2003) popisuje jednoduché i náročnější cviky, které se u tohoto typu klientů provádějí. Na základě pravidelného cvičení dosahuje i autorka pozitivních výsledků u osob u demencí lehkého a středního typu. Nejde jen o zlepšení rozvoje motoriky, ale také o to, aby si klienti uvědomovali více své tělo a možnosti, které jim nabízí. Jak jsme zmiňovali výše, problémem osob s demencí není jen narušení paměti, ale také lehčí a následně těžší dezorientace místem, časem a svou osobou. I na tuto problematiku jsme při výzkumu mysleli. V rámci využití her jsme trénovali kognitivní funkce a samotnou motoriku s tím, že jsme testovali také depresivní stavy a poruchy chování u klinetů. Hry byly voleny tak, aby trénovaly jak pozornost, tak orientaci či paměť. I nadále se tomuto výzkumu budeme věnovat, nyní již individuálnější formou, která nám nabídne zase jiné výsledky a jiný náhled na řešení této problematiky

(Vostrý a Dočevová, 2017). Celkově tak došlo ke zlepšení aktivních klinetů, kteří se naší intervence účastnili. Výsledky mnohdy jsou pouze bodově a tím zaznamenány pouze na testovaných papírech, ale již to může značit určitý posun, který může poskytnout další možnosti terapie osob s demencí.

Použitá literatura

1. BARTOŠ, A. a M., HASALÍKOVÁ, 2010. *Poznejte demenci správně a včas: příručka pro klinickou praxi.* 1. vyd. Praha: Mladá fronta, 2010. ISBN 978-80-204-2282-8x
2. FIŠAR, Z., 2009. *Vybrané kapitoly z biologické psychiatrie*. 2., přeprac. a dopl. vyd. Praha: Grada, ISBN 978-80-247-2737-0.
3. HÁTLOVÁ, B., 2003. *Kinezioterapie: pohybová cvičení v léčbě psychických poruch*. 2. přeprac. vyd. Praha: Karolinum, ISBN 80-246-0719-0
4. IORFINO, M., (2013). *Video games may help improve elderly´s cognitive function.* South Abington, Township,
5. JIRÁK, R. a F., KOUKOLÍK, 204. *Demence: neurobiologie, klinický obraz, terapie.* 1. vyd. Praha: Galén, ISBN 80-7262-268-4.
6. KUMAR, V. a S., ROBBINS, ed. Robbins, 2007. *Basic pathology*. 8th ed. Philadelphia: Saunders/Elsevier ISBN 978-0-8089-2366-4.
7. TOMCZYK, Ł., 2015. *Vzdělávání seniorů v oblasti nových médií*. Praha: Asociace institucí vzdělávání dospělých ČR, ISBN 978-80-904531-9-7.
8. TOPINKOVÁ, E., 2005. *Geriatrie pro praxi* [Geriatrics in practice]. Praga: Galén, p. 270. ISBN 80–7262– 365–6.
9. VAŠKOVSKÝ, R., 2007. *Deprese, antidepresiva a jejich vliv na sexuální fungování.* Praha: Grada, Psyché (Grada). ISBN 978-80-247-2163-7.
10. VOSTRÝ, M. a L., DONČEVOVÁ, 2017. *Trénování pozornosti a orientace u osob s Alzheimerovou chorobou – lehkého typu, pomocí ICT.* Liečreh: rehabilitácia 1, ISSN 0375-0922.
11. VOSTRÝ, M. a L., DONČEVOVÁ, 2016. *Trénování paměti v ergoterapii pomocí herní konzole u lehkého typu demence.* In: Sociálno-zdravotnícké spectrum, ISSN 1339-2379.
12. VOSTRÝ, M., 2016. *Efektivita edukačních intervencí u osob s Alzheimerovou chorobou.* (Diplomová práce), Ústí nad Labem: FZS UJEP.
13. ZAJDL, J., 2016. *Informační technologie a senioři, rozdílné možnosti v přístupu k informačním technologiím a k informační výchově v ČR a ve Spojených státech amerických (stát Colorado).* (Diplomová práce), Masarykova univerzita, Filozofická fakulta

Kontaktní údaje

Mgr. et Mgr. Michal Vostrý
Masarykova univerzita, Pedagogická fakulta
Poříčí 7, 603 00 BRNO
Tel: + 420 721 282 123
email: Michal.Vostry@ujep.cz

ROZVOJ A TESTOVÁNÍ JEMNÉ MOTORIKY U SENIORŮ S DIAGNÓZOU ALZHEIMEROVY CHOROBY

DEVELOPMENT AND TESTING OF FINE MOTORCYCS IN SENIORS WITH ALZHEIMER DISEASE DIAGNOSIS

Michal Vostrý

Abstrakt

Příspěvek je zaměřen na seniory s Alzheimerovou chorobou (v tomto případě s lehkým typem) a rozvojem jejich jemné motoriky (zručnost). K samotnému rozvoji je využito ergoterapeutické intervence, jakožto rehabilitační oblast, která se u seniorů plnohodnotně uplatňuje. Využívá např. trénování úchopů pomocí modelových činností nebo k rozvoji jemné motoriky využívá moderních technologií (tablet, x-box apod.). Pro porovnání úspěšnosti intervence jsme využili standardizovaného testu Purdue Pegboard, který byl záměrně vybraným probandům předložen před začátkem intervence a následně po ukončení. Následně byly výsledky vstupního a výstupního testování mezi sebou komparovány.

Klíčová slova: *Alzheimerova choroba, ergoterapie, jemná motorika, rehabilitační intervence, rozvoj motoriky*

Abstract

This article focuses on seniors with Alzheimer's disease (in this case light type) and the development of their fine motor skills (dexterity). The ergotherapeutical intervention is used as a rehabilitation area, which is fully utilized in the elderly adults. For example, it uses gripping skills using modeling activities or uses advanced technology (tablet, x-box, etc.) to develop fine motor skills. In order to compare the success of the intervention, we used the standardized Purdue Pegboard test, which was deliberately selected for the probands before the intervention and afterwards. Subsequently, the results of input and output testing were compared between each other.

Key words: *Alzheimer's disease, occupational therapy, fine motor skills, rehabilitation interventions, motor development*

1 ÚVOD

Jemná motorika je tzv. obratnou motorikou člověka. Poskytuje jedinci možnost manipulace např. s nějakým předmětem, ale také úzce souvisí s motorikou sdělovací (gesta). Tyto pohyby jsou charakteristické pro člověka moudrého, též označovaného jako homo sapiens sapiens. Díky těmto vlastnostem je schopen tvůrčí činnosti (Véle 1997). Tento běžný stav, kdy jsme plně motoricky aktivní, je však u seniorů vlivem ontogeneze nebo progrese určitého onemocnění (demence) silně pozměněn. Obecně se zpomaluje motorické tempo samotného pohybu a vytrácí se schopnost udělat několik věcí najednou (Štěpánková et al. 2014). V průběhu stáří dochází k involučním změnám ve svalové tkáni, která obsahuje fázická (rychlá) a tonická (pomalá) vlákna. Samotná kapacita fyzických vláken je podmíněna geneticky, rovněž tak i úpony svalových vláken jsou individuálně predisponovány. Následným procesem je tak také ochabování tonických svalů (Holmerová 2007). Postupem času dochází k redukci pohybových dovedností a tím i k výrazné pohybové chudosti a hybné

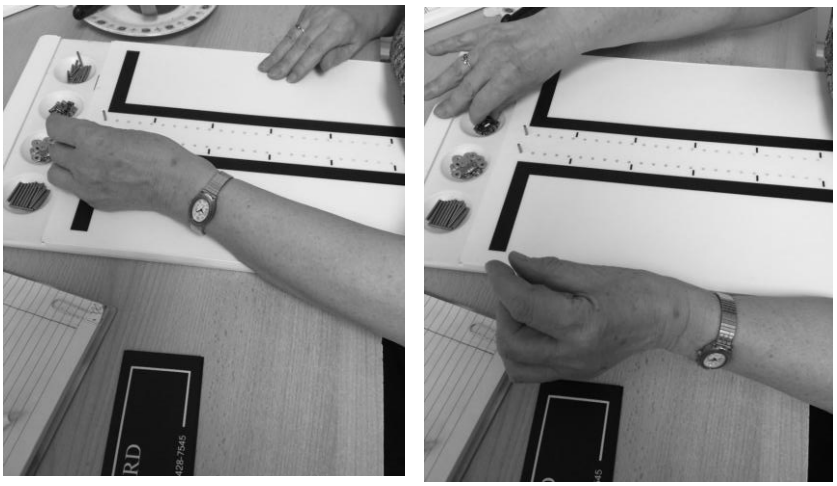
monotonii (Suter a Harvey 2011). Stárnutím postupně vázne schopnost vzájemného propojování jednotlivých pohybových činností (také aktů). Je patrno nedokonalé sdružování pohybů. Senior tak musí mnohem častěji zapojovat kortikální kontrolu, soustřeďovat pozornost a vykládat větší volní úsilí, aby zvládl konkrétní činnost při klasické lokomoci či jiné zvolené aktivitě (Špatenková a Smékalová 2015). Pokud již konkrétně budeme charakterizovat samotnou ergoterapii, je důležité zmínit, že podpora a rozvoj motoriky (ať jemné nebo hrubé) je prioritní záležitostí. Pokud zlepšíme kvalitu úchopů a samotné hybnosti v kloubech, můžeme tak jedince podpořit v samostatnosti a soběstačnosti (Krivošíková 2011). Míra soběstačnosti a samostatnosti ovlivňuje tělesný, ale také psychický stav jedince. Tím se podporuje také jeho socializace v rámci pobytového zařízení, ve kterém se nachází. Obecně je důležité zaměřit se nejen na rozvoj jemné motoriky, ale také na podporu hrubé motoriky spolu s kognitivními funkcemi, které jsou u osob trpících jakýmkoliv typem demence postupně narušovány (Opatřilová 2008). U Alzheimerovy choroby dochází k neurodegenerativnímu procesu, který je doprovázen atrofií mozku. Mozek tak ztrácí na váze a hmotnost je redukována pod 900 g oproti normálnímu stavu, který činní zhruba 1300 g (Kumar et al. 2007). Čím více progrese postupuje, tím je následně také spolupráce náročnější. Nejen, že se jedná o kognitivní deficit (narušení orientace, paměti, řeči apod.), ale také o narušení motoriky, kterou je důležité podporovat z důvodu udržení samostatnosti a soběstačnosti daného klienta (Vostrý a Dončevová 2016).

2 METODOLOGIE VÝZKUMU

Pro výzkum jsme využili 10 (označení A – J) probandů ve věkovém rozpětí 68-75 let. Prvotním kritériem byla stejná diagnóza (Alzheimerova choroba – lehký typ), která byla stanovena ve velmi podobném období (maximální rozpětí 4 měsíců). Výběr byl záměrný, jelikož námi stanovená kritéria byla velmi konkrétní. Celkově se nám podařilo najít 15 probandů, kteří splňovali podmínky, avšak 5 z nich spolupráci odmítlo. Zbylých 10 probandů se tak plně účastnilo naší intervence. Jednalo se o 100 % žen. Provedli jsme vstupní testování jemné motoriky pomocí Purdue Pegboard testu. Jedná se o test, který v praxi ergoterapie hodnotí jemnou motoriku a zručnost. Součástí testu je hodnocení úchopu, manipulace s kovovým kolíkem a jeho následné zasunutí do testové desky. Hodnotíme pravou a levou ruku zvlášť a je také možné vyšetřit obě horní končetiny při úkolu kompletování. Sledujeme rychlost a přesnost provedení úkolu, který následně bodově hodnotíme. Pro běžné testování pravé a levé ruky je nastaven 30 sekundový čas, na kompletování pak 60 sekund. Obvykle se testování provádí 3x za sebou, což nám zvyšuje spolehlivost testu (Krivošíková, 2011). Cílem našeho výzkumu bylo *zjistit, zda pravidelná ergoterapeutická intervence za využití ICT a klasických postupů (pracovní listy, modelové činnosti apod.), má vliv na rozvoj jemné motoriky u osob trpících lehkým typem Alzheimerovy choroby*. Výzkumná hypotéza pak zněla: *Pravidelná ergoterapeutická intervence povede ke zlepšení jemné motoriky u vybraných probandů trpících lehkým typem Alzheimerovy choroby.*

K samotné intervenci jsme využili klasických ergoterapeutických postupů na rozvoj jemné motoriky (trénování úchopů, navlékání korálků, posilování svalů ruky apod.) a následně jsme intervenci doplnili samotným využitím tabletu spolu s pracovními listy, které jsou hojně využívány ve speciální pedagogice se zaměřením na rozvoj jemné motoriky. Zaměřili jsme se tak na trénování pohybů, které podporují rozvoj jemné motoriky. Zpočátku probandi kreslili pouze hrubé obrazce (kruhy, čáranice apod.) postupem intervence pak docházelo k zaměření na dokonalejší kresbu spojenou s psaním tiskací abecedy (Wallen a Walker, 1995). Průběh naší terapie trval půl roku vždy 1x týdně. Probandi byli předem seznámeni s tím, co je na terapii čeká a tak se naše intervence stala doplňkem služeb, které nabízela instituce, ve které jsme mohli testování provést. Na samotné intervenci se tak podílel jak samotný výzkumník

tak jím pověření asistenti, kteří byli předem zaúkolováni, aby byla zajištěna kontinuita ergoterapeutické intervence.
Samotný průběh testování je zaznamenán na obrázku č. 1 a 2, kde si můžeme všimnout precizního, drobného úchopu u klientky ve věku 75 let s diagnózou Alzheimerova choroba – lehkého typu.



Obr. č. 1 a 2 – Testování pomocí testu Purdue Pegboard, začátek testování: klientka prvotně musí uchopit kovové kolíky a následně je vsouvat do připravené testové desky. Terapeut měří čas – 60 sekund. (zdroj: vlastní)

3 VÝSLEDKY VÝZKUMU

Pro interpretaci našich výsledků jsme využili volby komparace, kde uvádíme počet získaných bodů do 60 sekund. Za každé správné vložení kolíku s ostatními předměty získává klient 4 body, pokud stihne jen část, tím i úměrně ubývá počet bodů. Tabulka č. 1 nám popisuje výsledky vstupního vyšetření testem Purdue Pegboard před zahájením naší intervence. Probandi dosahovali velmi podobné úrovně výsledků. Maxima dosáhl proband označen jako G s průměrným počtem bodů 7,33/60 sekund. Minimum bodů získalo 7 klientů s výsledným průměrným počtem bodů 5,67/60 sekund. V tabulce č. 2 jsou zaznamenány výsledky výstupního vyšetření testem Purdue Pegboard po 6 měsíční ergoterapeutické intervenci, která byla cíleně zaměřena jak na rozvoj jemné motoriky (pomocí pravidelných cvičení a aktivit), tak také na podporu kognitivních funkcí klientů. Z výsledků je patrné statisticky významné zlepšení u sledovaných klientů (P = 0,021). V tomto případě lze za nejlepší výsledek považovat získání průměrného počtu bodů 8,00 bodů/60 sekund. Důležité však vzhledem k diagnóze probandů je, že nikdo z testovaných probandů nezaznamenal zhoršení stavu v komparaci s výsledky vstupního vyšetření. Rozdílnost mezi vstupním a výstupním hodnocením nám ukazuje graf č. 1.

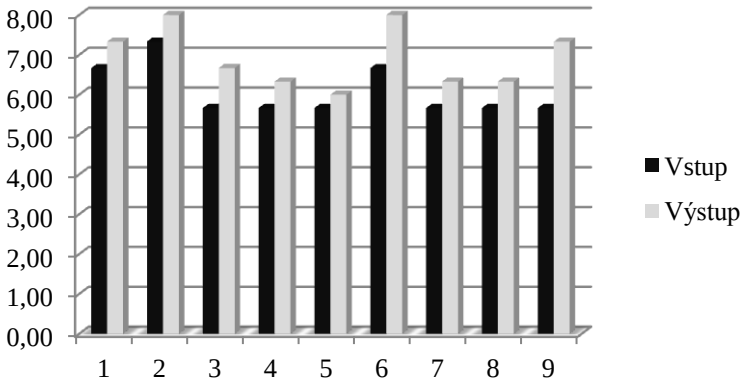
Tabulka č. 1 – Vstupní vyšetření pomocí Purdue Pegboard – Alzheimerova choroba – lehký typ (zdroj: vlastní)

Výstupní testování				
Proband	**Pokus 1**	**Pokus 2**	**Pokus 3**	**Průměr**
A	7	7	8	**7,33**
B	8	8	8	**8,00**
C	7	6	7	**6,67**
D	7	6	6	**6,33**
E	6	6	6	**6,00**
F	9	7	8	**8,00**
G	7	6	6	**6,33**
H	6	6	7	**6,33**
I	7	6	6	**6,33**
J	8	7	7	**7,33**

Tabulka č. 2 – Výstupní vyšetření pomocí Purdue Pegboard – Alzheimerova choroba – lehký typ (zdroj: vlastní)

Výstupní testování				
Proband	**Pokus 1**	**Pokus 2**	**Pokus 3**	**Průměr**
A	7	7	8	**6,67**
B	8	8	8	**7,33**
C	7	6	7	**5,67**
D	7	6	6	**5,67**
E	6	6	6	**5,67**
F	9	7	8	**6,67**
G	7	6	6	**5,67**
H	6	6	7	**5,67**
I	7	6	6	**5,67**
J	8	7	7	**6,33**

Graf č. 1 – Komparace výsledků mezi vstupním a výstupním testování pomocí Purdue Pegboard testu: Alzheimerova choroba – lehký typ (zdroj: vlastní)



4 ZÁVĚR

Při naší ergoterapeutické intervenci došlo ke statisticky významnému zlepšení oproti vstupnímu vyšetření a to u všech testovaných probandů. Domníváme se, že pravidelná aktivizace seniorů má své nezastupitelné místo v oblasti samotného ergoterapeutického působení. Naším cílem bylo zlepšení jemné motoriky klientů s diagnózou Alzheimerova choroba lehkého typu a zároveň ověření možnosti využití testu Purdue Pegboard u tohoto typu klientů v praxi. Obecně je problematika seniorů velmi diskutovaným tématem, mnohdy si je spojujeme právě s navyšujícím se kognitivním deficitem a zpomaleným motorickým tempem. Tyto složky lze plně aktivizovat pravidelným cvičením. U seniorů obecně je vhodné spojovat prvky kognitivní rehabilitace a pohybové terapie a tím spojit vše do jednoho uceleného procesu (Gillen 2008). Na základě zde zmiňovaných výsledků, které byly získány od 10 vybraných probandů, můžeme říci, že pravidelná aktivizace tohoto typu klientů má pozitivní účinky na rozvoj jejich jemné motoriky, což prokazují výsledky vstupního a následně výstupního hodnocení za pomoci standardizovaného testu, který poukazuje na bodové zlepšení u všech probandů, kteří se aktivně účastnili naší intervence. Závěrem tak chceme podotknout, že jedince trpící Alzheimerovou chorobou, je důležité neustále edukovat a podporovat k jejich rozvoji nejen po kognitivní stránce, ale také motorické. Za využití ucelené rehabilitace tak na klienty můžeme působit po stránce psychologické, pedagogické, sociální a léčebné. Což je ideální kombinace, která by měla být vždy upřednostňována.

Použitá literatura

1. SUTER, S. a L., HARVEY, 2011. *Vision rehabilitation: multidisciplinary care of the patient following brain injury*. Boca Raton [Florida]: CRC Press, Taylor & Francis Group, ISBN 9781439836569.
2. GILLEN, Gl., 2008. *Cognitive and Perceptual Rehabilitation Optimizing Function.* London: Elsevier Health Sciences, ISBN 9780323074704.
3. HOLMEROVÁ, I., 2007. *Vybrané kapitoly z gerontologie*. 3. přepracované a doplněné vydání, Praha: EV public relations, 143 s., ISBN: 978-80-254-0179-8
4. KRIVOŠÍKOVÁ, M.., 2011. *Úvod do ergoterapie*. Praha: Grada, ISBN 978-80-247-2699-1.
5. KUMAR, V. a S., ROBBINS, ed. Robbins, 2007. *Basic pathology*. 8th ed. Philadelphia: Saunders/Elsevier ISBN 978-0-8089-2366-4.
6. OPATŘILOVÁ, D., 2008. *Možnosti speciálně pedagogické podpory u osob s hybným postižením*. 1. vydání, Brno: Masarykova univerzita, 180 s., ISBN: 978-80-210-4575-0
7. ŠTĚPÁNKOVÁ, H., C., HÖSCHL a L., VIDOVIĆOVÁ, 2014. *Gerontologie: současné otázky z pohledu biomedicíny a společenských věd*. Praha: Karolinum, ISBN 9788024626284.
8. ŠPATENKOVÁ, N., a L., SMÉKALOVÁ, 2015. *Edukace seniorů: geragogika a gerontodidaktika*. Praha: Grada, Pedagogika (Grada). ISBN 978-80-247-5446-8.
9. VÉLE, F., 1997. *Kineziologie pro klinickou praxi*. Praha: Grada, ISBN 80-7169-256-5.
10. VOSTRÝ, M., a L., DONČEVOVÁ, 2016. *Trénování paměti v ergoterapii pomocí herní konzole u lehkého typu demence.* In: Sociálno-zdravotnícké spektrum, roč. 2016 ISSN 1339-2379.
11. VOSTRÝ, M., PECHAROVÁ, P., a H., KYNŠTOVÁ, 2017. *Působnost ergoterapie v rehabilitaci osob s Alzheimerovou chorobou či jinou demencí.* In: Zborník

abstraktov: VII. Medzinárodný neurorehabilitační kongres Neurorehab, Kúpele Lúčky (ALMIL): Neurorehab, s. 71, ISBN 978-80-971938-4-3.
12. VYSKOTOVÁ, J., a K., MACHÁČKOVÁ. *Jemná motorika: vývoj, motorická kontrola, hodnocení a testování.* Praha: Grada, 2013. ISBN 978-80-247-4698-2.
13. WALLEN, M., a R., WALKER, 1995. *Occupational therapy practice with children with perceptual motor dysfunction: Findings of a literature review and survey.* Australian Occupational Therapy Journal, ISSN 00450766.

Kontaktní údaje

Mgr. et Mgr. Michal Vostrý
Univerzita Jana Evagelisty Purkyně v Ústí nad Labem, Fakulta zdravotnických studií
Velká Hradební 13, 400 96 Ústí nad Labem
Tel: +420 721 282 123
email: Michal.Vostrý@ujep.cz

EDUCATION OF PEOPLE WITH DEMENTIA AS PART OF COGNITIVE REHABILITATION USING MODERN MEDIA

Michal Vostrý

Abstract

This contribution paper focuses on individuals suffering from dementia (especially in this case, light type of Alzheimer's disease). The research includes testing of 20 probands which were divided by an intentional selection into two groups: experimental (active participation on further special-pedagogical and ergotherapeutic, also known as work therapy intervention) and control group (passive participation during intervention). The testing was initiated by entrance examinations with the use of standardized Montreal cognitive test. The same test was then used after the intervention within a framework of output testing and the collected data were then compared with each other. The following results than pointed to the fact, that regular intervention for seniors suffering from Alzheimer's with the use of modern technologies (in this particular case game consoles connected with the Kinect system sensors) and classic "paper and pencil" tests had certain amount of influence on the results of the experimental group, which achieved slightly better results than passive control group which stagnated, or got worse compared with the results at the beginning.

Key words: *dementia, education, elderly education, ergotherapy, special education - intervention, comprehensive rehabilitation,*

1 INTRODUCTION

Alzheimer's disease can be defined as a neurodegenerative condition which is followed by atrophy of the brain tissues, which causes the brain to lose its weight (the overall weight of brain is then reduced under 900g to its normal state which is circa 1500g). Senile plaques (also known as neuritic plaques) can then be found on the surface of the cortex, which are caused by a protein composed of amyloid beta peptides (Bradbury, 2007). The more such plaques an individual has on their brain, the worse the cognitive deficit is, symptoms of which are loss of orientation in space and time, disruption of short-term, and subsequently long-term memory (Kumar et al., 2007). The contemporary discussion of the issues tries to slow down the progression of the disease. Even early symptoms should be a warning and force is to choose a suitable activity for cognitive and motor function development (Bennett, 2008). Such individuals then seem less forgetful and are not as much disoriented, as others thus making the condition less severe, however even these slight symptoms should be examined in case of further development of Alzheimer's disease (Topinková, 2005). The more the condition progresses, the more the state of the patient worsens and the intervention itself is then, of course, more difficult (Bennet et al., 2011). If we want to have the best results possible, it is necessary to start with the intervention as soon as possible, meaning from the point of first symptoms of early stages of dementia (Vostrý a Dončevová, 2016). Following the previous theme we can then add the knowledge to the education of senior members of the society, which is today done at universities of the Third Age (U3A). These institutions help develop their technological literacy etc. In many cases the elderly learn how to operate with a computer and what are the pros and cons of using technology. A group of people with Alzheimer's is quite often being neglected, but it is the early stages of this condition which needs to be attended and help clients to activate and support their already disrupted cognitive functions. To have this educative option can then be used as dementia prevention (Tomczyk, 2015). We can also mention one key study which pointed out the use of modern technology

(in this particular case a game console and movement sensor) and video games to help people with disputed cognitive functions. One case study included a female senior (103 years), who was able to support her cognitive functions by the use of a bowling video game. The results and discussion of this study included a conclusion where author states that if cognitive functions are not stimulated enough, the overall health of clients and patients will inevitably deteriorate (Iorfino, 2013).To all of which Vostrý and Dončevová (2016) follow in their study. Their presented results of education intervention with the use of ICT showed that experimental group showed signs of improvement after 6-month intervention. The output result then being recommendations for general practice and for supporting professions which directs professionals to engage patients in regular activation activities using the ICT and similar technologies.

2. METHODS

For the purpose of this particular research the causational research problem was contemplated (Gavora, 2010): What is the influence of the use of gaming consoles on the changes of cognitive function levels among people with dementia (light type of Alzheimer's disease). The goal is then to find out, whether the use of gaming consoles in ergotherapy intervention has any influence on the change of cognitive function levels. The testing itself was then done using a standardized test: Montreal cognitive test which is widely used in ergotherapy for senior members of the society and thus was applied for input and outputs testing. This test includes eight areas (focus and orientation, memory, word production, language, visual and spatial skills, abstraction, etc.) from which we focused on the testing of focus and orientation skills. The results collected in the data sets from input and output testing were provided by a comparison between experimental and control group. The group of probands was divided into experimental (A – which actively participated on our intervention) and control (P – which only used services provided by the institution where they lived) by a loss toss. For the intervention method we decided to use the console X-Box 360 with Kinect system and freeware commercial application Dr. Kawashima´s body and brain. This gaming application is divided into various areas, all of which client is able to control with his/her body movement. ICT is then regarded as an addition to already existing standard ergotherapy (work therapy) procedures, which are usually done in a "paper and pencil" fashion. The research itself took approximately 6months, once a week, each session around 25 mins. In case of this particular study we used a comparison of data with the use of nonparametric statistical method which doesn't require normal (Gauss) data distribution which was due to low number of individual's mere impossible. The statistical analysis contained the difference between input and output results. The difference values were then compared with each other by Mann-Whitney which calculated the effect size to be $\alpha = 0, 05$.

3. RESULTS

During the entrance testing the results were sort of equal, the result values varied in score between 17 to 24 from the overall point count, which related to the normal distribution of data, specifically slight or deep depression. Visible changes were manifested after the output result comparison, where the experimental group (active participants of intervention program) reached higher scores than the control group (passive participation during intervention). The overall point count was slightly better among the first group, which had in average 2 points better results from the beginning, whereas the control group stagnated or had worse scores in some cases even 9 points worse from the initial testing. Based on these results it is possible to say, that experimental groups has improved in their results and therefore reached better results than the control group. The results are shown in the table n. 1 and graph n. 1, 2 a 3, which show the difference between the pretest and the posttest testing in the experimental and

controlling group. On the basis of the data obtained, we can prove that after the experiment, the experimental group achieved better results, compared to the control group, which stagnated, slightly worsened.

Table 1. – Montreal cognitive test - difference between in and out testing. E = experimental group, C – controlling group, (source: own)

Coming-in		Coming-out		in and out
Group	Number of points	Group	Number of points	Difference
E	18	E	27	-9
E	17	E	23	-6
E	22	E	24	-2
E	23	E	25	-2
E	22	E	26	-4
E	19	E	25	-6
E	21	E	26	-5
E	21	E	25	-4
E	22	E	23	-1
E	16	E	17	-1
C	18	C	15	3
C	18	C	17	1
C	24	C	21	3
C	22	C	18	4
C	19	C	17	2
C	19	C	15	4
C	24	C	19	5
C	23	C	18	5
C	20	C	16	4
C	23	C	18	5

Figure 1 – distribution of difference between input and output testing - Montreal cognitive test: light type - experimental group - pretest (W = 62,5 P-value = 0,359974), (source:own)

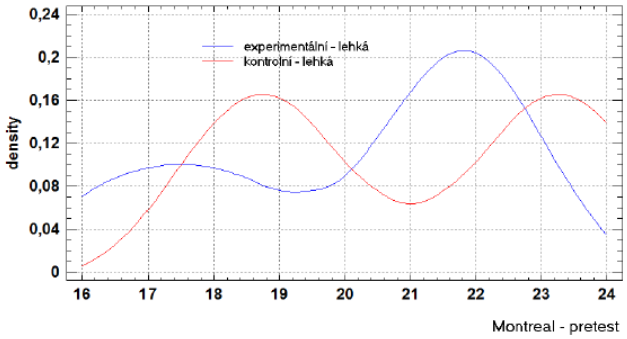


Figure 2 – distribution of difference between input and output testing - Montreal cognitive test: light type - experimental group - posttest (W = 6.0 P-value = 0.000943149), (source: own)

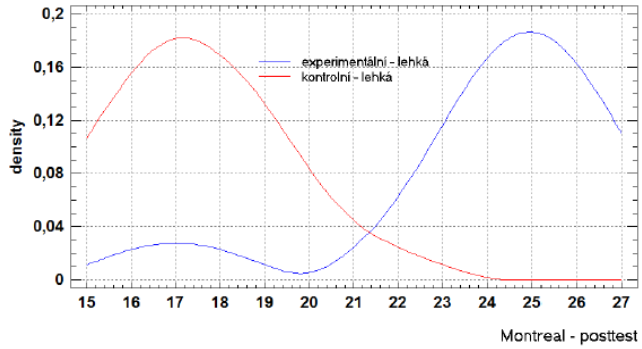
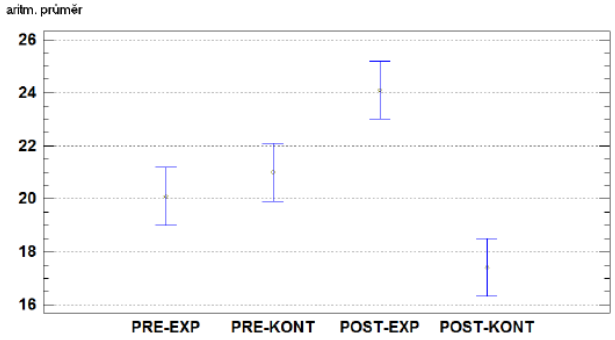


Figure 3 – Arithmetic averages and confidence intervals of the Montreal cognitive test Overall Results (source: own)



4. DISCUSSION

Hátlová (2010) focused her work on psychomotor therapy for people suffering from dementia. Her approach includes exercise units, which are to stimulate an individual properly. The main idea of stimulation was also one of the goals in our study as well. In this particular intervention the stimulation included not only the movement apparatus, but also cognitive functions as well. Thanks to the body movement, probands we able to control a fictional character inside the video game connecting cognitive functions during which they also had to think about their move and use their memory, not to mention the cognitive training itself. Kolářová et al., (2012) in her article describes the work with elderly using the idea and observation of movement during cognitive and movement rehabilitation and states that the observation itself and imagination of movement has a positive influence on the optimal movement performance not only to be used for sportsmen, but also for people after trauma, or other neurological diagnosis. The resulted movement is then described by the individual quality of cognitive functions. These include: orientation in space (using visual and spatial area, which was a part of the rehabilitation process). The results of the study point to the fact, that the use of ICT has a positive effect on improving cognitive functions, based on the results of the experimental group (scored more point at the end using Addenbrooks cognitive test).

5. CONCLUSION

There is not yet any accessible commercial product on the market which could fulfil the nature of cognitive function rehabilitation (Vostrý a Dončevová, 2016). The used product which was at our disposal can be evaluated as very useful. The tool fulfilled all criteria which were set at the beginning of the study. The only problem to which we have pointed to previously (articles, diploma thesis etc.), being the childish layout of the applications used and the set time limit, which then limits the full use of the application itself. It was the time which played a key role in completing all the tasks, which could not be done in time due to the limit set by the app. That is why only some parts of the app were used. The full potential then could not have been exploited e.g.: create and safe a file of game statistics even when the game goals were not fulfilled. The contemporary world is fully open to modern technologies and that is why a question needs to be raised: if in this area should some products be created which could help seniors, individuals suffering from dementia and all other patients for increasing their life quality in general. Not only that such individuals strive to become a part of the general *populis* (which creates the majority within a society), which uses technologies regularly and actively, but also they could further develop their cognitive skills (Hill, 2000). The study itself was quite complicated at first, when it comes to the negotiated time duration of the intervention, however over time organisational problems vanished completely. Probands (if we don't count in short term illnesses, exhaustion etc.) were with only little trouble participation and with little help were more than able to perform given tasks. As Laver et all., (2017) stated in the management of the behavioral and psychological symptoms of dementia, and emphasize that symptoms should be prevented where possible and that, in the first place, non-pharmacological strategies should be used to manage the symptoms. One of the most effective interventions in the care of dementia is to provide staff with in-depth training on signs of dementia, personal care and the most effective communication with dementia and their carer´s.

References

1. BENNETT, D., (2008). *Alzheimer's, depression and dementia: a husband's observation*. Longwood, FL: Xulon Press
2. BENNETT, S., S., SHAND a J., LIDDLE. (2011). *Occupational therapy practice in Australia with people with dementia: A profile in need of change.* Australian Occupational Therapy Journal [online]. 58(3), 155-163 [cit. 2017-09-13] from: http://doi.wiley.com/10.1111/j.1440-1630.2011.00930.x
3. BRADBURY R., at al., (2007). *Alzheimer's disease*. Berlin: Springer
4. FLEMR, L. et al., (2014). *Pohybové aktivity ve vědě a praxi: konferenční sborník u příležitosti 60. výročí založení Fakulty tělesné výchovy a sportu Univerzity Karlovy v Praze.* 1. vyd. Praha: Karolinum, 527 s.
5. GAVORA, P., (2010). *Úvod do pedagogického výzkumu.* 2., vyd. Brno: Paido
6. HÁTLOVÁ, B., et al., (2010). *Psychomotorická terapie*. in Kolář,P.et al. *Rehabilitace v klinické praxi*. Galén
7. HILL, R., et al., (2000). *Cognitive rehabilitation in Old Age.* Oxford: University press, 312 p.
8. IORFINO, M., (2013). *Video games may help improve elderly´s cognitive function.* South Abington, Township, from: http://citizensvoice.com/news/video-games-may-help-improve-elderly-s-cognitive-function-1.1593326
9. KOLÁŘOVÁ, B. a kol., (2015). *Využití představ a observace pohybu v kognitivní a pohybové rehabilitaci.* In: Rehabilitácia, roč. 52, č. 3: s. 129- 192
10. KUMAR, V. a S., ROBBINS, ed. Robbins, (2007). *Basic pathology*. 8th ed. Philadelphia: Saunders/Elsevier

11. LAVER, K. et all., (2017). Evidence-based occupational therapy for people with dementia and their families: What clinical practice guidelines tell us and implications for practice. Australian Occupational Therapy Journal [online], from: http://onlinelibrary.wiley.com/doi/10.1111/1440-1630.12309/full
12. PROBST, M. et all. (2010). Psychomotor *Therapy and Psychiatry: What´s in a Name?* Medicine Journal, 9 p.
13. TOMCZYK, Ł., (2015). *Vzdělávání seniorů v oblasti nových médií*. Praha: Asociace institucí vzdělávání dospělých ČR
14. TOPINKOVÁ, E. (2005). *Geriatrie pro praxi* [Geriatrics in practice]. Praga: Galén, p. 270
15. VOSTRÝ, M., (2016). *Efektivita edukačních intervencí u Alzheimerovy choroby*. Univerzita J. E. Purkyně v Ústí nad Labem, Pedagogická fakulta, 94 s., 22 s. příl. Vedoucí diplomové práce Jiří Škoda
16. VOSTRÝ, M. a L., DONČEVOVÁ, (2016). *Trénování paměti v ergoterapii pomocí herní konzole u lehkého typu demence.* In: Sociálno-zdravotnícké spektrum, roč. 2016

Kontaktní údaje

Mgr. et Mgr. Michal Vostrý
Masarykova univerzita, Pedagogická fakulta
Poříčí 7, 603 00 BRNO
Tel: + 420 721 282 123
email: Michal.Vostry@ujep.cz

UČITEĽ, ŽIAK A ICH OSOBNE VNÍMANÁ ZDATNOSŤ

THE TEACHER, PUPIL AND THEIR SELF-EFFICACY

Denisa Gunišová, Nina Kozárová

Abstrakt

Príspevok pojednáva o profesijnej zdatnosti v učiteľskom povolaní. Tak ako by mal učiteľ poznať svoju subjektívne vnímanú zdatnosť ako profesionála, mal by byť schopný poznať a pracovať aj so subjektívnou zdatnosťou svojich žiakov. Príprava, plánovanie realizácia činností si od učiteľa vyžaduje rozvoj kompetencií, ktoré sú predpokladom rozvíjania tejto profesie. Pri profesijných kompetenciách sa na úspešnosti učiteľského povolania podieľa práve sebapoňatie učiteľa.

Klíčová slova: *sebapoňatie učiteľa, sebapoňatie žiaka,*

Abstract

The paper deals with professional competence in the teaching profession. Just as the teacher should know his self-efficacy as a professional, he should be able to know and work with the self-efficacy of his pupils. Preparing and planning the implementation of activities from the teacher requires the development of competencies that are a prerequisite for the development of this profession. In the case of professional competencies, the teacher's self-reliance is shared by the teacher's success.

Key words: *self efficacy of teacher, self efficacy of pupil*

1 ÚVOD

Úlohy, ktoré má učiteľ spĺňať nie sú jednoduché. Nie je iba sprostredkovateľom informácií, ktoré majú žiaci vedieť, ale je aj vychovávateľom a rozvíjateľom osobností žiakov. Každý učiteľ musí dokonale ovládať a rozumieť svojim aprobačným predmetom, musí byť pedagogicky podkutý. Okrem odborného a pedagogického vzdelania nesmieme opomenúť ani všeobecné vzdelanie a výnimočné charakterové vlastnosti, nakoľko bude učiteľ pre svojich žiakov vždy vzorom. Ide o mimoriadne zodpovednú prácu, pričom sa funkcia učiteľa v posledných rokoch výrazne transformuje. Už nie je ten, kto riadi, kontroluje, ale stáva sa facilitátorom, ktorý podporuje, diagnostikuje, inšpiruje, pomáha, aktivizuje a vytvára pozitívnu klímu a možnosti sebarozvoja žiaka. Je veľmi dôležité, aby sa aj samotní učitelia zúčastňovali a ovplyvňovali vnímanú zdatnosť svojich žiakov. Dovoľujeme si predpokladať, že participovaním učiteľov na ovplyvňovaní sebapoňatia žiakov z nich vytvorí kvalitnejších aktérov vyučovacieho procesu. Nakoľko budú poznať jadro, ktoré môžu podľa konkrétnych situácií dopracovávať, modifikovať a usmerňovať žiaducim smerom.

2 UČITEĽ A JEHO OSOBNOSŤ

Každý učiteľ vo vyučovacom procese pôsobí na žiakov celou svojou osobnosťou. Ovplyvňuje žiaka pri formovaní jeho hodnôt, postojov a tiež vytvára vzťah (pozitívny alebo negatívny) k vyučovaciemu predmetu. Pre študentov, ktorí sa rozhodnú ísť tiež učiteľskou cestou sú ich učitelia vzorom ako vyučovať a mnohé prvky si preberajú do svojho vyučovacieho procesu. Sebapoňatie sa vytvára v procese socializácie, v procese interakcie so sociálnym prostredím. Zahŕňa vedomosti o sebe aj vzťah k sebe.

Medzi najznámejšie typológie učiteľov podľa E. Caselmanna považujeme učiteľa paidotropa a učiteľa logotropa (In Turek, I.,2014):

- Paidotrop – je učiteľ, ktorý sa zaujíma o žiakov, snaží sa ich pochopiť a počúva ich problémy. Empaticky pristupuje k žiakom.
- Logotrop – koncentruje sa na svoj vyučovací predmet, je dobrý v oblasti vzdelávania, menej v oblasti výchovy. Snaží sa prehlbovať si svoj svetonázor a vychovávať k tomu aj svojich žiakov.

U žiakov má autoritu ten učiteľ, ktorý je odborník vo svojom odbore, dokáže učivo dobre vysvetliť a má ku žiakom vhodný prístup. Rovnaké požiadavky by mal mať učiteľ na žiakov i na seba. V tomto duchu sa v odbornej literatúre stretávame s pojmami ako sebapoňatie respektíve selfkoncept.

Sebapoňatie je súborom postojov jedinca k sebe a integruje v sebe tri zložky: kognitívne, emočné a konatívne. Kognitívna rovina zahŕňa sebapoznanie, poznatky o svojich vlastnostiach a sebapotvrdenie ako potreba udržiavať si predstavu o sebe. Rovina emocionálna zahŕňa sebaúctu, pocity, ktoré má k sebe jedinec (sebaobdiv, sklamanie zo seba...). Konatívna rovina zahŕňa sebarealizáciu, sebapresadzovanie a sebakontrolu (Kosíková, V., 2011).

V. Holeček (2014) pri definovaní vlastného „JA“ hovorí o štyroch obrazoch.

- Subjektívne Ja – vlastná predstava o sebe o svojich možnostiach (aký som, čo viem, aké mám postavenie v spoločnosti). Je výsledkom sociálnej interakcie a vyvíja sa postupne.
- Zrkadlové Ja – poukazuje na to, ako ma vnímajú iní ľudia. Učiteľ tento obraz o sebe môže získať vyžiadanou spätnou väzbou od svojich žiakov.
- Reálne Ja – sú moje skutočné schopnosti a vlastnosti, ktoré nevníma človek sám.
- Ideálne Ja – predstavuje súhrn schopností, postojov, hodnôt, ktoré chce jedinec v živote dosiahnuť.

Z. Hellus (2011) poukazuje na to, že sebapoňatie môže našu osobnosť rozvíjať a aktivizovať, na druhej strane aj dezaktizovať. Predovšetkým v učiteľskom povolaní je sebapoňatie veľmi dôležité pre vytvorenie autority a úspešného pôsobenia (Holeček, V., 2014).

Učiteľová osobnosť a jeho sociálne charakteristiky prospievajú výrazným spôsobom do školského prospechu žiaka. Učiteľ, ktorý má vysoké sebaponímanie, v prípade neúspechu žiaka hľadá príčinu nielen v žiakovi, ale aj v sebe samom.

Pri zamýšľaní sa učiteľa nad svojou činnosťou často prichádza k otázkam:

- Motivujem žiakov dostatočne?
- Sú moje požiadavky na žiakov primerané?
- Pristupujem k žiakom objektívne?
- Dávam im dostatočný priestor na sebapoznanie, sebavyjadrenie?
- Aký dopad má moje hodnotenie na sebahodnotenie žiakov?

Aby učiteľ mohol odpovedať na dané otázky, mal by mať rozvinuté didaktické najmä psychodidaktické kompetencie.

2.1. Pedagogicko-didaktické a psychodidaktické schopnosti učiteľa

Pedagogicko-didaktická schopnosť učiteľa sa prejavuje v zvládnutí vyučovacej hodiny, projektovaní jednotlivých vyučovacích fáz a tiež v reálnosti formulovania výchovno-vzdelávacích cieľov. Psychodidaktická schopnosť učiteľa sa prejavuje v tom, ako učiteľ rešpektuje psychologické zákony učenia, prekoncepty žiakov, aktuálne prežívanie žiakov, ich pocity, rešpektuje sebapoňatie každého žiaka.

V tradičnom vyučovaní a prístupe je učiteľ viac v role sprostredkovateľa a odovzdávateľa poznatkov.

Konanie učiteľa by sa malo sústrediť na podporu vlastného učenia sa žiaka, uvedomovanie si svojich silných a slabších stránok, uvedomiť si svoj progres, prípadne stagnáciu v učení.
Ak učiteľ dokáže aktivizovať žiakov, aby sa učili a správali tak, že si môžu rozvíjať mimopoznávacie funkcie, znamená to, že učiteľ má vysoko rozvinuté psychodidaktické kompetencie. Psychodidaktické kompetencie je možné vyjadriť schopnosťou riadiť a uvedomovať si procesy aktívneho učenia sa žiakov.
Špecifické psychodidaktické kompetencie učiteľa:
1, vedieť projektovať proces učenia sa žiakov na vyučovaní,
2, vedieť riadiť a podporovať proces učenia,
3, vedieť vyhodnocovať učenie sa žiakov.
4, podporovať sebarozvoj žiaka, vytváranie si obrazu o sebe.
Kompetencia vedieť projektovať proces učenia sa žiakov na vyučovaní vyžadujú nasledujúce zručnosti učiteľa: (Rötling, G.,2004):

- stanoviť edukačné ciele predmetu,
- vymedziť základné učivo,
- vymedziť učebný cieľ,
- navrhnúť učebné úlohy,
- stanoviť kritéria hodnotenia úloh,
- určiť vhodné spôsoby aktívneho učenia sa žiakov s ohľadom na cieľ,
- pripraviť vhodné učebné zdroje a podmienky pre učenie,
- stanoviť potrebný čas na osvojenie úloh,
- navrhnúť spôsob a kritéria hodnotenia výsledkov učenia,
- navrhnúť scenár vyučovacej hodiny,
- viesť žiakov k aktívnemu sebahodnoteniu, stanoveniu si vlastných cieľov.

Kompetencia učiteľa *vedieť realizovať projekt učenia* a vyučovania predpokladá postupnosť, ale zároveň účinnosť a efektívnosť jednotlivých prvkov.
Kompetencia *vedieť riadiť a podporovať proces učenia sa žiakov* si vyžaduje, aby mal učiteľ nasledovné zručnosti: podporovať proces učenia žiakov, poznať učebný štýl žiaka, podporovať samostatnosť, zodpovednosť, vytvárať podmienky na sebahodnotenie žiakov, vytvárať spätnú väzbu a vytvárať priaznivú sociálnu klímu na vyučovaní.
Kompetencia *vedieť vyhodnocovať projekt učenia sa žiakov* si vyžaduje, aby učiteľ reflektoval a navrhoval možnosti na zlepšenie účinnosti procesu.
Ako indikátory hodnotenia psychodidaktických kompetencií učiteľa G. Rötling (2004) uvádza nasledovné:

1. *výsledky učebnej činnosti žiakov* – zisťuje úroveň vedomostí žiakov didaktickými testami, portfóliami.
2. *výpovede žiakov o procese učenia* - formou ústnych odpovedí žiakov v rámci sebahodnotenia, dotazníkom na zisťovanie miery aktívneho učenia, dotazníkom na zisťovanie motivácie žiaka, dotazníkom na zisťovanie sociálnej klímy v triede.
3. *sebahodnotenie pomocou autodiagnostického dotazníka* - týka sa riadenia procesu aktívneho učenia sa žiakov na vyučovaní. Jednou z dôležitých oblastí učiteľa, ktorý má rozvinuté psychodidaktické kompetencie je naučiť žiakov učiť sa, uvedomovať si svoj proces učenia, poučiť sa z chýb, vedie žiakov k sebahodnoteniu.

3 UČITEĽOVA PROFESIJNA ZDATNOSŤ (SELF-EFFICACY) VYMEDZENÁ TEÓRIOU

Učiteľ disponuje určitými profesionálnymi schopnosťami a vedomosťami, ktoré sú pozorovateľné a hodnotené vo výsledkoch pedagogickej práce. Veľmi podstatné je to, čo si učiteľ sám myslí o svojich schopnostiach. Ako hodnotí svoju pedagogickú činnosť, vzťah ku žiakom, svoju vytrvalosť pri práci so žiakmi, svoje emocionálne prežívanie danej činnosti.

Presvedčenie učiteľa o svojich schopnostiach sa môže prejavovať v učebných výkonoch žiaka, disciplíne žiakov, riešení problémov vo vyučovaní, tiež vo vzťahu k rodičom (ako ich učiteľ vie zapojiť do činnosti školy) (Majerníčková, J., Gavora, P. 2013).
Za zakladateľa teórie self-efficacy sa považuje sociálny psychológ A. Bandura (1997), ktorý hovorí o triadickom modeli správania človeka.

- správanie človeka,
- osobnostné vlastnosti človeka,
- prostredie.

Uvedené faktory vstúpili napríklad aj do modelu vzniku a rozvoja osobne vnímanej zdatnosti Tschannen-Moranovej, Woolfolk Hoyovej a Hoya (1998).
Podľa týchto modelov majú na formovanie osobne vnímanej zdatnosti vplyv:

- funguje do značnej miery podvedome,
- úspešné skúsenosti v školskej praxi,
- môže nadobudnúť rôzny stupeň (nízky, vysoký)
- pozitívna spätná väzba od kolegov, vedenia, rodičov,
- emocionálna pohoda učiteľa v spojení s fyzickým zdravím. (Wiegerová, A., Dacejová, V., 2012).

Terminologické uchopenie, preklad tohto pojmu z anglického jazyka nebolo jednoduché.
J. Mareš (2012) uvádza nasledovné:

Tab. 1 preklad pojmu self-efficacy: Zdroj Mareš, J., (2012)

anglický termín	základ prekladu	český překlad	autor/autoři
self-efficacy	sebadôvera	sebeadôvera vo vlastné schopnosti	(Urbánek, Čermák, 1997)
	uplatnenie	sebeuplatnenie	Janoušek (1992), Vymětal (1996)
		vnímané sebeuplatnenie	Janoušek (2005)
	účinnosť/efektivita	sebaúčinnosť	Janoušek (1992), Binarová, Dařílek (1996)
		vnímaná osobná účinnost	Hoskovcová (2009), T. Mertin (2007)
		vnímaná vlastná účinnost	Hoskovcová (2009)
		percipovaná autoefektivnosť	Janoušek (2005)
		obecná vlastná efektivita	Křivohlavý (1993)
	úspech	presvedčenie o vlastnej úspešnosti	T. Mertin (2007)
	zdatnosť	osobná zdatnosť	Mareš, Gavora (1999)
		vnímaná osobná zdatnosť	Mareš (1997)

Konceptom osobne vnímanej zdatnosti sa zaoberali J. Rotter (1966), A. Bandura (1994). Novší pohľad na teóriu osobne vnímanej zdatnosti spracovávali P. Gavora (2008), J. Mareš (2011) a iní.
P. Gavora (2009) zdôrazňuje, že vnímaná profesijná zdatnosť je presvedčenie učiteľa a viera vo vlastné sily a schopnosti. Nevyjadruje však jeho skutočnú schopnosť vyučovať, komunikovať so žiakmi, diagnostikovať a riešiť problémy. Je to jeho presvedčenie ako vie tieto úlohy zvládnuť. Toto presvedčenie o svojich schopnostiach sa môže odlišovať od jeho reálnych schopností, vždy je však silným determinantom jeho konania (Majerníčková, J., Gavora, P., 2013).
Učiteľ s pozitívne vnímanou profesijnou zdatnosťou býva v triede efektívny a aktívny.
Bandura (1997) vymedzuje tri charakteristiky učiteľovej vnímanej zdatnosti:

- Úroveň – poukazuje na vzťah k úrovni obtiažnosti, čo znamená na akú úlohu si učiteľ trúfne.
- Všeobecnosť – sa vymedzuje ako rôznorodosť oblastí (činnosti, úlohy, vyučovacie predmety), v ktorých sa učiteľ cíti kompetentný.
- Veľkosť – sa prejavuje ako určitá miera vnútornej istoty (do akej miery si učiteľ verí).

Self-efficacy ovplyvňuje učiteľa v tom, ako bude konať. Ak je jeho sebaponímanie dobré bude voliť náročnejšie vyučovacie postupy. Ak sa vo vyučovacom procese vyskytnú prekážky je schopný nim čeliť a zvládať ich. Učitelia, ktorí majú vysokú mieru vnímanej zdatnosti, si viac veria, vynakladajú do svojej práce viac úsilia, pracujú intenzívnejšie, zdravo riskujú, aby prekonávali problémy a odstraňovali prekážky, ktoré im bránia dosiahnuť svoje ciele.

3.1 Ovplyvňovanie vnímania osobnej zdatnosti žiakov

V prostredí školy sa najvýznamnejšia pozornosť venovala predovšetkým sebapoňatiu učiteľov (napríklad Gibbon, Dembo, 1984; Gavora, 2009). Ako dôvod autori poukazujú na fakt, že faktory self-efficacy sa ľahšie skúmajú u dospelých osôb, učiteľ je koordinátorom výchovno vzdelávacieho procesu. Ak má byť vyučovací proces úspešný a tiež postupy učiteľa majú byť efektívne, je dôležité, aby učiteľ ovplyvňoval správanie svojich žiakov. Respektíve, aby bol oboznámený s ich self-efficacy.

Úloh a kompetencií, ktoré má učiteľ vo vyučovacom procese je nesporne mnoho. Uvedená štúdia poukazuje predovšetkým na to, že ak chce učiteľ svoju prácu vylepšovať a chce zažívať úspech, mal by poznať nielen poznávaciu rovinu svojich žiakov, ale mal by vedieť aj o ich osobne vnímanej zdatnosti.

M Vašutová (2013) poukazuje na to, že u žiakov sú dôležitými aspektmi sebapoňatia nasledovné:

- Výkonové charakteristiky, vzťahované predovšetkým ku škole.
- Charakteristiky v interpersonálnych vzťahoch (sociálny status, prestíž...).
- Charakterové vlastnosti – úprimnosť, čestnosť....

V školských podmienkach je dôležité poukázať na to, že existuje nielen vonkajší pohľad učiteľa na žiaka a na jeho výkony, ale tiež subjektívny pohľad samotného žiaka na seba a svoje výkony.

Z uvedeného dôvodu je na mieste poukázať na cielené ovplyvňovanie učiteľovej zdatnosti v škole. A. Wiegerová a kol. (2012) vytvorili niekoľko odporúčaní, ktoré by mali byť na vyučovaní uplatňované.

- Dôraz sa kladie na kvalitné výsledky, tiež na posilňovanie sebadôvery. Jedna z ciest ako zlepšiť učebné výsledky žiakov je posilňovanie sebadôvery žiakov. Mení sa pohľad na vlastné „ja“. Tá druhá cesta vedie k riešeniu náročnejších úloh. Žiaci zisťujú, že sú schopní dosahovať lepšie výsledky ak si veria, čo ich motivuje k ďalšiemu rozvoju.
- Interpretácia žiakovho úspechu i neúspechu má otvárať cestu vpred. V tomto procese je dôležité naučiť žiakov interpretovať príčiny svojho neúspechu a nepreceňovať svoje úspechy. Učiteľ by mal prihliadať na to, aby sa žiaci naučili prijať a spracovať aj neúspech. V neposlednom rade ukázať žiakovi, že robí chyby a usmerniť ho v tom, ako im predchádzať.
- Viesť žiakov k porovnávaniu s modelmi svojich rovesníkov. Rovesníci slúžia ako model predovšetkým v prípade, ak žiak nemá konkrétnu skúsenosť alebo je neistý. Učiteľ môže pri skúšaní vyvolať úspešného žiaka, o ktorom vie, že bude úspešný. Tento žiak slúži ako pozitívny model pre ostatných žiakov.
- Viesť žiakov k tomu, aby si vytvorili vlastné kritéria kvality výkonu. Dôležité je upozorniť žiakov, že je dôležité prekonávanie vlastných kritérií, reálne sebahodnotiť svoj výkon a neporovnávať sa s ostatnými spolužiakmi.

- Pri hodnotení žiakov by mal učiteľ využívať okrem vzťahových noriem, kriteriálne a individuálne normy. Učitelia často využívajú pri hodnotení porovnanie žiaka so spolužiakmi. Takýto spôsob hodnotenia môže na žiakov pôsobiť demotivačne. Vhodnejšou formou je kritérialna norma, ktorá predstavuje požadovaný výstup z hodiny. Žiak sa môže sám presvedčiť a overiť si, nakoľko sa priblížil k požadovaným cieľom a výsledkom. Individuálna norma je vhodná pri žiakoch prospechovo slabých alebo nadaných. Výkon žiaka sa porovnáva v čase.
- Rozoznávať nevhodné stratégie, ktoré žiaka znevýhodňujú a je dôležité pracovať na ich odstránení. Ide o obranné stratégie žiaka, ktoré žiak používa ako obranu pred prípadným neúspechom v škole. Poukazuje na prekážky, ktoré mu bránia k úspešnému výsledku (málo času, náročné úlohy, množstvo úloh).
- Zabrániť sebapodceňovaniu žiakov. Mienku o sebe si žiak vytvára aj na základe hodnotenia učiteľom. Toto hodnotenie učiteľ prezentuje pred ostatnými spolužiakmi, preto by nemalo byť ponižujúce a ani zosmiešňujúce žiaka.
- Stanoviť žiakom skôr blízke ako vzdialené ciele. Blízke ciele, ich naplnenie má pre žiaka väčšiu motivačnú hodnotu. Blízke ciele sa ľahšie kontrolujú a hodnotia. Postupne ako žiak dosahuje jednotlivé ciele zvyšuje to pocit jeho zdatnosti.
- Voliť skôr nepriamu pomoc od učiteľa a zamerať pozornosť na pomoc medzi spolužiakmi. V minulosti bolo vyhľadávanie pomoci v škole chápané ako znak žiakovej nekompetentnosti a nízkeho vnímania zdatnosti. V súčasnosti sa na proces, kedy si žiak uvedomuje, že potrebuje pomoc pozeráme pozitívnejšie. Ide o žiakov prístup k učeniu, kedy volí určitú stratégiu. Pomoc žiakovi môže mať dve podoby, jedna podporuje žiaka, druhá ho naopak brzdí. V prvom prípade hovoríme o inštrumentálnom hľadaní pomoci, kedy zodpovednosť za svoj výsledok je na žiakovi. Druhá forma je exekutívne hľadanie pomoci, kedy sa zodpovednosť prenáša na pomáhajúceho. Ide o priamu pomoc, kedy žiak očakáva, že veľkú časť práce za neho prevezme pomocník.
- Rozvíjať u žiakov skôr zameranie na kvalitu. Takýto žiaci sa snažia rozšíriť svoje schopnosti, snažia sa prebrať učivo do hĺbky. V prípade neúspechu hľadá žiak chybu v sebe, nie v učiteľovi a okolí.

4 ZÁVER

Sebapoňatie, vzťah k sebe, viera vo vlastné schopnosti ovplyvňujú naše emocionálne ladenie, ale aj motivačnú stránku osobnosti a v neposlednom rade aj správanie a konanie k okoliu. Pozitívne sebapoňatie učiteľa je dôležitým predpokladom jeho úspešného profesijného pôsobenia i formovania sebahodnotenia jeho žiakov.

Sebapoňatie učiteľa je výrazným faktorom, ktorý vplýva na vyučovací proces, na jeho klímu, prístup k žiakom, náročnosť a požiadavky na žiakov. Pozitívny prístup v rodine, akceptácia dieťaťa učiteľom umožňujú rozvinúť pozitívne sebapoňatie žiaka. Dieťa tak získava dôveru vo svoje schopnosti, ktoré je schopné vo vyučovacom procese rozvíjať.

Príspevok vznikol za podpory projektu VEGA 1/0098/17 Individuálna koncepcia a stratégia vyučovania v kontexte profesijného rozvoja učiteľa

Použitá literatura

1. BANDURA, A. Self-efficacy [online]. In V.S.Ramachaudran (Ed.), Encyclopedia of human behaviour, 4, 1994, s. 71 – 81. New York: Accademic Press. Dostupné na: http://www.des.emory.edu/mfp/BanEncy.html (cit. 11.11.2017).
2. BANDURA, A. Self-efficacy. The Exercise of Control. New York: W. H. Freeman and Comp, 1997. 604 s. ISBN 0-7167-2850-5.

3. ČÁP, J. Psychologie výchovy a vyučování. IN: KOSÍKOVÁ, V. Psychologie ve vzdělávaní a její psychodidaktické aspekty. Praha: Grada, 2011, s. 28. ISBN 978-80-247-2433-1.
4. GAVORA, P. Učiteľovo vnímanie profesijnej zdatnosti (self-efficacy). Prehľad problematiky. In Pedagogika, roč. 58, 2008. č. 3, s. 222 – 235
5. GAVORA, P. Profesijná zdatnosť vnímaná učiteľom. Adaptácia výskumného nástroja. . In Pedagogická revue, roč. 61, 2009. č. 1-2, s. 19 – 37.
6. GAVORA, P. Koncept self-efficacy. In Wiererová, A., a kol. Self efficacy (osobne vnímaná zdatnosť). Bratislava: SPN. 2012, s 10-13. ISBN 978-80-10-02355-4.
7. GIBSON, S.; DEMBO, M. Teacher efficacy: A construct validation. In Journal od Educational Psychology, 1984, 76, č. 4, s. 569 – 582.
8. Helus, Z.. Jak chápat učitelství – impulzy pro pedagogické fakulty.Pedagogika, 2011, 61(4), 373–382.
9. HOLEČEK, V. Psychologie v učitelské praxi. Praha:Grada. 2014. 224 s. ISBN 978-80-247-3704-1.
10. KOSÍKOVÁ, V. Psychologie ve vzdělávaní a její psychodidaktické aspekty. Grada: 2011, 263 s. ISBN 978-80-247-2433-1.
11. MAJERČÍKOVÁ, J., GAVORA, P. . Vnímaná zdatnosť (self-efficacy) učiteľa spolupracovať s rodičmi: Konštrukcia výskumného nástroja. 2013.Pedagogika,68(2), s. 128-146.
12. MAREŠ, J. Může učitel ovlivnit vnímanou osobní zdatnost žáků? In Jana Kratochvílová, Jiří Havel: Hodnocení a sebehodnocení žáků v primárním vzdělávání – aktuální otázky, perspektivy a výzvy. Brno: Masarykova univerzita, 2012, s. 11-28, ISBN 978-80-210-5876-7.
13. MAREŠ, J. Pedagogická psychológie. Praha: Portál. 2013. 702 s. ISBN 978-80-262-0174-8.
14. RÖTLING, G. Ako si učiteľ môže hodnotiť svoje psychodidaktickékompetencie. In Pedagogické rozhľady, 2004, č. 5, ISSN 1335-0404.
15. ROTTER, J. Generalized expectancies for internal versus external control of einforcements [online]. In Psychological Monographs, 80 č. 609, 1966, s. 1 – 28. Dostupné na: http://socserver.soc.iastate.edu/sapp/soc512Rotter.pdf
16. TSCHANNEN-MORAN, M.; WOOLFOLK HOY, A.; HOY, W. Teacher efficacy: Its meaning and measure. Review of Educational Research, 1996, 68, č. 2, s. 202-248..
17. TUREK, I. Didaktika. Bratislava: Wolters Kluwer. 2014, 611 s. ISBN 978-80-8168-004-5.
18. VAŠUTOVÁ, M. Medzi dětstvím a dospělostí .Ostrava: Ostravská univerzita, 2013, 138 s. ISBN 978-80-7464-125-1.
19. WIEGEROVÁ, A. a kol. Self efficacy. Osobne vnímaná zdatnosť v edukačných súvislostiach. SPN, 2012, 118 s. ISBN 978-80-10-02355-4.

Kontaktné údaje

PhDr. Denisa Gunišová, PhD., PaedDr. Nina Kozárová,
Univerzita Konštantína Filozofa v Nitre, Pedagogická fakulta,
Dražovská cesta 4, 949 74 Nitra
Tel: +421 37 6408 238
email: dgunisova@ukf.sk, email: nina.kozarova@ukf.sk

ANALÝZA KOGNITÍVNEHO A UČEBNÝCH ŠTÝLOV ŽIAKOV, AKO DETERMINANTOV ROZVOJA VNÚTORNEJ POZNATKOVEJ ŠTRUKTÚRY

ANALYSIS OF PUPIL´S COGNITIVE AND LEARNING STYLES AS DETERMINANTS OF THE DEVELOPMENT THEIR INTERNAL KNOWLEDGE STRUCTURE

Denisa Gunišová, Nina Kozárová

Abstrakt

V predkladanom príspevku sa autorky zameriavajú na analýzu učebných štýlov žiakov. Pozornosť venujú tiež diferenciácii v pojmoch učebný štýl a kognitívny štýl. V neposlednom rade venujú pozornosť kognícii v edukačnom procese, kognitívnej modifikácii a metakognícii, ktorú považujú za najsilnejší spôsob myslenia, ktorý umožňuje vo významnej miere rozvinúť učebný potenciál žiakov. Metakognícia je podľa autoriek potrebná nielen na dokončenie zadaných úloh, ale aj pre kritické a tvorivé myslenie, je potrebná pre úspešné učenie sa a pre širokospektrálny rozvoj celej osobnosti človeka.

Kľúčová slova: *učebný štýl, kognitívny štýl, kognícia, metakognícia, kognitívna modifikácia.*

Abstract

In the present paper, the authors focus on the analysis of pupils' learning styles. Attention is also paid to the differentiation in terms of learning style and cognitive style. Last but not least, they pay attention to cognition in the educational process, cognitive modification and metacognition, which they consider as the most powerful way of thinking, which makes it possible to significantly develop the learning potential of pupils. Metacognition, according to the authors, is necessary not only for completing the assigned tasks but also for critical and creative thinking. Metacognition is necessary for successful learning and for the broad-spectrum development of the pupil´s personality.

Key words: *learning style, cognitive style, cognition, metacognition, cognitive modification.*

1 ÚVOD

Učenie je proces, ktorý nás sprevádza po celý život, či už sa učíme zámerne, alebo nezámerne. Otázkou však zostáva, koľko pozornosti venujeme procesu učenia sa? Je skutočne prioritou nášho záujmu a života to, či sa vieme učiť, no najmä, či sa učíme správne a efektívne? Máme zvládnutý dostatočný počet edukačných stratégií? Korešponduje naše učenie sa s učebným štýlom, ktorý máme? Robí nám učenie radosť alebo nás zaťažuje? Sme toho názoru, že z každého človeka sa môže stať dobrý a úspešne sa učiaci žiak.

Myšlienka vzdelávacej renovácie je v súčasnom školstve viac ako žiaduca. Je potrebné, aby nielen v odbornej ale aj laickej verejnosti rezonovala otázka: Čo blokuje pokrok súčasného vzdelávacieho systému?

Učenie sa je druh ľudskej činnosti, ktorá vo výraznej miere modifikuje človeka. Učiť sa neznamená iba memorovať, bez snahy prepájania jednotlivých informácií, či hľadania vzájomných súvislostí. Učenie je najúčinnejší prostriedok rozvoja ľudského intelektu.

Každý človek sa učí iným spôsobom. Ide o preferenciu jednotlivých zmyslov pri prijímaní a spracovávaní informácií. Niekto sa lepšie učí počúvaním, niekto čítaním, prezeraním obrázkov a grafov, či manipuláciou predmetov. Hoci si žiaci vo výchovno – vzdelávacom

procese častokrát neuvedomujú svoj učebný štýl, je to spôsob učenia sa, ktorý urýchľuje a zefektívňuje jeho priebeh a výsledky.

2 KOGNÍCIA A KOGNITÍVNA MODIFIKÁCIA

Hoci sa v našich školách pojem kognícia nevyskytuje veľmi často, kognitívna veda ako vedná disciplína vznikla v sedemdesiatych rokoch dvadsiateho storočia. Predmetom skúmania tejto vedy je inteligencia, umelá inteligencia, spracovávanie informácií, to ako si pamätáme.

Podľa J. Duchovičovej (2011, s.294) pod pojmom: „kognícia (lat. cognito) rozumieme všetky duševné schopnosti súvisiace s myslením a poznávaním.“ Tieto schopnosti sú prítomné vo všetkých oblastiach ľudského života. Podľa autorky práve kognícia ovplyvňuje to, ako žiak manipuluje s informáciami, čo a akým spôsobom si ukladá v pamäti.

Pressley (1983) sa zaoberá zlepšovaním vzdelávacieho procesu. Jeho výskum potvrdzuje predchádzajúce tvrdenia, nakoľko naznačuje, že žiaci musia pri pokuse o naučenie nového materiálu používať tri kognitívne procesy. Tieto procesy zahŕňajú; uchovávanie informácií v pamäti; rozhodovanie o logike obsahu; a aktiváciu predchádzajúcich poznatkov v snahe integrovať prichádzajúce poznatky.

Napriek novým edukačným prístupom je ešte stále zakódovaný spôsob výučby, kedy žiak dostáva hotovú vypracovanú štruktúru učiva, ktorú sa naučí (väčšinou) naspamäť. Aj keď vďaka memorovaniu žiaci môžu dosahovať v škole výborné výsledky, efektivita vynaloženej práce je krátkodobá a získané vedomosti nie sú trvalé.

Pod pojmom kognitivizmus podľa P. Thagarda (2001, s.11) rozumieme jav zaoberajúci sa psychológiou, myslením, neurovedami, umelou inteligenciou, lingvistikou, antropológiou a inteligenciou.

Na základe interakcie genetických vplyvov a sociokultúrneho kontextu boli definované mnohé teoretické východiská kognitívnej edukácie. Realizácia kognitívnej edukácie v praxi zvyšuje motiváciu žiakov k učeniu, inteligenciu, predpoklady metakognitívnych procesov a v neposlednom rade aj učebnú kapacitu.

Stotožňujeme sa s názormi J. Duchovičovej (2011), že práve učením môžeme stimulovať plasticitu mozgu a podporovať rozvoj kognitívnych funkcií. Zmeny kognitívnych funkcií môžu prebiehať nielen v dôsledku dozrievania mozgu, ale aj pre dostatok skúseností počas celého života. Autorka tieto tvrdenia dokazuje komparovaním teórií kognitívnej edukácie L. S. Vygotského a J. Piageta. Kým J. Piaget (1972) preferuje proces zrenia ako predpoklad, že sa môže dieťa učiť, podľa Vygotskeho (1978) k učeniu dochádza vďaka interakcii s dospelým.

Každý jednotlivec vytvára svoju vlastnú štruktúru poznania – vnútornú kognitívnu sieť všetkých poznatkov, ktorá je determinovaná základe rýchlosti spracovania informácií a kapacitou pamäte. Takto vytvárané poznatky a schémy sú neustále aktivované a modifikované v akejkoľvek vzdelávacej situácii. Poznanie preto považujeme za koncept vnútorných procesov, prostredníctvom ktorých môžeme informácie začleňovať do vlastnej poznatkovej databázy, resp. vnútornej kognitívnej štruktúry. Oblasť poznania a učenia sa zaoberá spracovaním informácií, preto ich môžeme považovať za vnútorný mechanizmus, ktorý funguje bez ohľadu na to, koľko, alebo aký druh učiva sa človek učia.

Žiaci prichádzajú do edukačných situácií s nápadmi, prípadne istou "kognitívnou štruktúrou“. Ich informácie však môžu byť nesprávne. Z toho dôvodu je potrebné všetky informácie zdieľať a komparovať, aby žiaci následne získali potrebné usmernenie o tom, ako majú používať jednotlivé informácie v bežnom živote, modifikovať a zdokonaľovať vlastnú vedomostnú základňu – vnútornú kognitívnu štruktúru, pretože vtedy sa stane učenie novým vlastníctvom vzdelávacieho prostredia.

Odborníci, ktorí zastávajú názor kognitívnej modifikovateľnosti sú presvedčení o tom, že aj poruchy učenia sú spôsobené nedostatkami v podmienkach. Môže ísť napríklad o narušenie

procesu sprostredkovania alebo vnútorné príčiny. Na druhej strane je pre rozvoj kognície podstatná práca s chybou, hoci od nej mnohí autori v poslednej dobe upúšťajú a zdôrazňujú najmä systém pozitívneho ohodnocovania.

Kognitívna modifikácia, ku ktorej môže dôjsť v priebehu celého života, realizovaná na základe edukačného procesu je sprevádzaná dodržiavaním tzv. kognitívnych kľúčov, medzi ktoré zaraďujeme:

1. porozumenie problému a kladenie otázok (schopnosť rozpoznať a určiť problém, analýza problému a kladenie vecných otázok k problému);
2. porozumenie potrebe pracovať presne (zachovať stálosť, obmedziť impulzivitu);
3. orientácia v čase a priestore (vedieť popísať pozície, hľadať logické zdôvodnenia)
4. štruktúrovane informácií (vytvoriť sieť poznatkov, ktorá slúži pre jednoduchšie zapamätanie);
5. nácvik pracovnej pamäte (predchádzať psychickému bloku);
6. selektívna orientácia pozornosti; (schopnosť spontánne porovnávať, sústredene vnímať);
7. vyhľadávanie vzťahov (spájať súvislosti);
8. odhaľovanie podstatného (výber dôležitých informácií, rozširovanie mentálneho obzoru);
9. rozvoj plánovacích koncepcií (schopnosť kombinovať viaceré zdroje informácií);
10. vedomie kompetencie (rozvoj sebavedomia, zvnútornenie, objektívne sebahodnotenie);

S pojmom kognícia je spätý termín metakognícia. V odbornej literatúre môžeme nájsť viaceré definície. Postupne sa metakognícia stáva jednou z najmodernejších oblastí výskumu v pedagogike aj v psychológii.

Zavedenie tohto pojmu sa pripisuje J. H. Flavellovi v roku 1979, ktorý chápe problematiku metakognície ako efektívne sledovanie, následné riadenie a inštrumentácia kognitívnych procesov, obvykle so zámerom dosiahnuť nejaký konkrétny cieľ.

V pedagogických, ale aj psychologických publikáciách nájdeme definíciu metakognície vyjadrenú ako poznávanie na druhú, alebo uvedomovanie si vlastných kognitívnych procesov. Podľa V. Kosíkovej (2011,s.40) chápeme metakogníciu ako: „Súhrn kognitívnych schopností, osobnostných vlastností a motívov.“ To znamená, že do poznávacích procesov sú zapojené aj metakognitívne stratégie, logické riešenie problémov a najmä osobnostné charakteristiky dané predispozíciami.

Podľa nášho názoru je metakognícia termín, ktorý sa týka sebamonitorovania a vedomého používania učebných stratégií. Metakognícia nie je automatický proces, ale je výsledkom dlhodobého vývoja kognitívneho systému. Metakogníciu považujeme za najsilnejší spôsob myslenia, ktorý nám umožňuje vo významnej miere rozvinúť náš učebný potenciál. Metakognícia je potrebná nielen na dokončenie zadaných úloh, ale aj pre kritické a tvorivé myslenie, je potrebná pre úspešné učenie sa a cenné pre vývoj celej osobnosti človeka.

Výučba, ktorá kladie dôraz na rozvoj metakognitívneho vzdelávania žiakov, ich vedie k tomu, aby prispôsobili procesy a modely učenia sa konkrétnym úlohám a uplatňovali stratégie, ktoré považujú za efektívne a produktívne. Žiaci, ktorí majú rozvinutú metakogníciu, analyzujú problematické situácie v edukačnom procese, uvažujú o svojich silných stránkach a preferenciách.

3 UČEBNÝ ŠTÝL

V početných pedagogických publikáciách, diskusiách, periodikách čítame o tom, že škola neučí žiakov ako sa majú učiť, najčastejšie na to musia prísť sami. Žiaci si sami vyberajú učebné postupy, ktoré im akosi prirodzene vyhovujú, no nie vždy musia byť efektívne. Problémom, ktorý bráni zefektívneniu vyučovacieho procesu môže byť aj tendencia učiteľa

predpokladať, že jeho žiaci majú rovnaký učebný štýl ako on sám. Máme však za to, že aplikáciou poznania učebných štýlov v edukačnom procese môžeme kvalitu vzdelávania v podstatnej miere zvýšiť.

Pre potreby predkladaného príspevku je potrebné urobiť ilustratívny prierez rovinami, s ktorými sa s rozpracovávaním učebného štýlu môžeme stretnúť. Prvým aspektom je interpretačný rámec, ktorý odkazuje na relevantné teórie napomáhajúce vyzdvihnúť význam učebných štýlov. Za druhý aspekt považujeme aplikačný rámec, ktorý sa snaží ukazovať praktický význam využitia učebných štýlov vo vyučovaní a tiež pre oblasť diagnostických, metodických a výskumných procedúr. Cieľom a spoločným motívom interpretačného i aplikačného rámca je snaha preklenúť nedostatky učenia sa a ponúknuť efektívnejšiu podobu výučby.

Problematika štýlov je vo svete skúmaná už takmer štyri desaťročia a dostáva sa do povedomia i v našej literatúre prostredníctvom štúdií a odborných článkov, napr. I. Turek (2002), L. Kaliská (2008, 2009), T. Zaťková (2011), R. Riding, S. Rayner (2009) pod.

Štýly učenia sa najčastejšie definujú ako postupy pri učení, ktoré jedinec v danom období uprednostňuje, preferuje (Fenyvesiová, L., 2006, s. 69).

J. Mareš (1995, s.75) vymedzil učebný štýl ako súhrn postupov, ktoré počas života učiaci sa jednotlivec preferuje v situáciách pedagogického typu. V priebehu života sa pritom vrodený učebný štýl človeka môže modifikovať zámerne, ale aj nezámerne.

Podľa autorov J. Škoda - P. Doulík (2011. s.45) „Učebným štýlom je určitý individuálne špecifický spôsob učenia, ktorému v určitom období dáva žiak prednosť a bežne ho používa v rôznych situáciách."

E.Petlák (2009) zdôrazňuje, že mozog človeka je orgán aktívny, no nemusí pracovať presne tak, ako si to učiteľ predstavuje. Autor tiež upozorňuje na to, že v školskom prostredí sú učebné štýly stále málo preferované, rovnako ako znalosť fungovania mozgu, ktorá by mohla za pomoci vhodných metód napomáhať učiteľovi vo výchovno-vzdelávacom procese. Z výskumov ľudského mozgu vychádzajú aj mnohé iné teórie učebných štýlov. Hemisféry mozgu plnia pri myslení rôzne úlohy. Kým ľavá hemisféra je logická, racionálna, pravá hemisféra ľudského mozgu sa zameriava na kreativitu, či intuíciu. Produkuje humor, divergentné myslenie, fantáziu.

R. Riding a S. Rayner (2009, s. 51) interpretujú učebné štýly do troch skupín a to na základe podobností v psychometrickej schéme, v chápaní pojmu učenia sa, ale i vo vzťahu k formovaniu učebnej stratégie. Títo autori pod učebným štýlom rozumejú jedinečný súbor diferencií, ktoré zahŕňajú osobné preferencie vo vyučovaní, formu učebnej aktivity, rozdiely v osobnostnej a intelektuálnej oblasti. Klasifikáciu, ktorú autori reprezentujú, je rozdelená do skupín modelov učebných štýlov, ktoré sú založené na:

- učebných procesoch – na skúsenostnom, empirickom učení sa,
- učebných procesoch – na študijnej orientácií,
- preferencii vyučovania,
- rozvoji kognitívnych zručností a učebných stratégiách.

Tabuľka 1: Modely učebných štýlov podľa R. Ridinga a S. Raynera (2009)

Dimenzia	***Popis***	***Referencie***
Modely založené na učebnom procese		
Konkrétna skúsenosť/reflektujúce pozorovanie/abstraktné chápanie pojmov/aktívne experimentovanie	Dvojdimenzionálny model zahrňujúci percepciu a spracovanie informácií	**Kolb (1976)**
Aktivista/teoretik/pragmatik/reflektor	Preferované spôsoby učenia sa, ktoré vytvárajú individuálny	**Honey a Mumford (1986, 1992)**

	prístup k učeniu sa.	
Modely vychádzajúce zo študijnej orientácie		
Orientácia na význam/reprodukovanie/orientácia na výkon/holistická orientácia; neskôr orientácia hlboká, strategická, povrchná, bez smerovania, výkonová.	Integrácia preferencie vyučovania so spracovaním informácií v žiakovom prístupe k štúdiu.	**Entwistle (1979)** **Entwistle a Tait (1994)**
Povrchná-hlboká výkonová orientácia/vnútorná –vonkajšia výkonová orientácia.	Integrácia prístupov k štúdiu s motivačnou orientáciou.	**Biggs (1978, 1985)**
Syntéza-analýza/rozvíjajúce spracovanie/zapamätávanie faktov/študijné metódy.	Kvalita myslenia počas učenia sa vo vzťahu k odlišnosti, transferu a trvalosti pamäti a podržania faktov v pamäti.	**Schmeck (1977)**
Modely založené na preferencii vyučovania		
Elementy prostredia/sociologické/emocionálne/fyzické/psychologické.	Reakcia žiaka na kľúčové stimuly:prostredie, socializáciu, emocionalizáciu, fyzickosť, psychickosť.	**Price (1976)** **Dunn, Dunnová (1989)**
Participant-vyhýbajúci saúspolupracujúci-súťaživý/nezávislý-závislý	Sociálna interakcia rozvíjajúca tri bipolárne dimenzie do schémy, ktorá popisuje žiakov typický prístup k učebnej situácii.	**Grasha a Riechmann (1975)**
Modely založené na rozvoji kognitívnych zručností		
Vizualizácia/verbálne symboly/zvuky/pocity.	Učebné štýly definované na základe formy vnímania.	**Reinert (1976)**
Závislosť na odbore/skúmanie - zameriavanie/šírka kategorizácie/kognitívna komplexnosť/impulzívnosť/ Vyvažovanie - zaostrovanie/(ne)tolerancia.	Kognitívny profil troch typov žiakov odrážajúci ich pozíciu v bipolárnom, analyticko-globálnom kontinuu, ktoré vyjadruje individuálny rozvoj kognitívnych zručností.	**Letteri (1980)**
Kognitívne zručnosti/percepčná reakcia/preferencie pri štúdiu a vo vyučovaní.	**Identifikuje 24 častí učebného štýlu, ktoré sú združené do troch dimenzií. Model predpokladá, že rozvoj kognitívnych zručností je podmienkou efektívneho učenia sa.**	**Keefe a Monk (1986)** **Keefe (1989, 1990)**

Charakteristika učebných štýlov je natoľko rozsiahla, že jestvuje viacero spôsobov ich kategorizácie. Pre ilustráciu uvádzame klasifikáciu učebných štýlov od P. B. Guilda (2001), ktorý rozdelil štýly podľa toho, či pôsobia na:

a) správanie (Behavior): do tejto kategórie zapadajú prejavy charakteristík z afektívnej, kognitívnej aj konceptuálnej oblasti;
b) afektivitu (Affect): do tejto kategórie zapadá vplyv prostredia, intrapersonálne aj interpersonálne vzťahy, hodnoty, pocity, motivácia, emocionálne reakcie;
c) kogníciu (Cognition): túto kategóriu charakterizuje spôsob vnímania a získavania informácií;
d) konceptualizáciu (Conceptualization): túto kategóriu charakterizuje spôsob myslenia, pamäť, tvorba myšlienky ale aj spracovanie myšlienky.

Rôzne štúdie zaoberajúce sa učebnými štýlmi sa stretávajú v názoroch, kedy rešpektovanie individuálneho učebného štýlu predstavuje upustenie od klasického prezentovania učiva prostredníctvom učiteľa, čím sa zvýši počet žiakov vtiahnutých do učebného procesu. Podľa G. Lojovej (2005, s.176) by mal pedagóg využívať najširšie spektrum techník, metód a aktivít, aby si každý študent mohol vyberať podvedome tie predmety, ktoré mu umožňujú čo najľahšie spracovávať informácie.
Mnohé výskumy sa zaoberali vzťahom učebného štýlu žiakov a kultúry napr. G. L. Nelson (1988), P. A. Eliason (1998), R. L. Oxford (1983) alebo E.V. Sanchez (1993).
Ďalšie výskumy sa zaoberali vzťahom učebného štýlu žiakov, individuálnym štýlom učenia a školskou úspešnosťou žiakov. Išlo o výskumné zistenia: DeBello (1985), Virostko (1987), Murray- Quinn (1985), Hill (1987), White (1980), ktoré potvrdili pozitívne účinky učiteľovho využívania metód, ktoré sú v súlade s individuálnymi osobitosťami žiakov.
Pojem *učebný štýl* nie je v odbornej literatúre doposiaľ definovaný jednoznačne, nakoľko sa termín často nahrádza alebo spája s pojmom *kognitívny štýl*.
U niektorých autorov (S. Messick, N.J. Entwistle) sa pojmy prekrývajú, iní (N. Katzová, P. Guild, R. Riding) ich stotožňujú a niektorí autori (R. Murray- Harwey, S. Claxon) dominantnejšími pojmom učebný štýl úplne nahrádzajú pojem kognitívny štýl.
Turek, I. (2008. s.83) uvádza: "Kognitívny štýl je spôsob, ktorý človek preferuje pri prijímaní a spracúvaní informácií. Je prevažne vrodený, ťažko sa mení a je len v minimálnej miere viazaný na obsah. Učebný štýl je súhrn postupov, ktoré jednotlivec v určitom období preferuje pri učení sa. Vyvíja sa z vrodeného základu, ale v priebehu života sa mení a zdokonaľuje".
Kognitívny štýl sa podľa mnohých pedagogických aj psychologických autorov považuje za vrodený a slúži ako základ pre rozvoj učebných štýlov. Učebný štýl môžeme systematicky rozvíjať a modifikovať ho, ak je to potrebné.
J. Mareš (1998, s.53) rozoznáva v ich vzájomnom vzťahu päť možností: buď sú oba pojmy totožné, čiastočne sa prekrývajú, nemajú nič spoločné, druhý je súčasťou prvého alebo prvý druhého. Porovnaním rozdielov v chápaní učebného a kognitívneho štýlu môžeme konštatovať, že tak v terminológii ako aj vo výskumoch panuje v odborných kruhoch veľká nejednotnosť.

4 ZÁVER

Ak chceme, aby bolo učenie efektívne, je potrebné neustále zvyšovať množstvo kontextových vedomostí a klásť dôraz na výučbu "explicitných vedomostí", ktoré vedú k "implicitnému pochopeniu".
Podľa výskumných zistení, sa žiaci s vizuálnym učebným štýlom najradšej učia v tichom prostredí s presnými pokynmi od učiteľa, pričom bývajú najviac zodpovední pri učení. Žiaci s auditívnym učebným štýlom boli podľa výskumných zistení menej zodpovední pri učení a preferovali zvukovú kulisu. Žiaci s kinestetickým učebným štýlom boli pri učení zodpovední najmenej a takmer vôbec nepotrebovali štruktúrovať zadané úlohy od vyučujúceho.
Na záver považujem za potrebné pripomenúť, že žiak, ktorý preferuje určitý učebný štýl, preferuje tento štýl aj pri prezentácii svojej práce. To znamená, že pokiaľ sa žiak učí najrýchlejšie a najkvalitnejšie z grafov a tabuliek, svoj výklad bude najkvalitnejšie prezentovať pomocou grafov, vysvetlenia z bodov na prezentácii.

This work was developed as part of the research project VEGA n.1/0098/17 Individual Conception and Strategy of Education within the Context of a Teacher´s Professional Development.

Použitá literatura

1. DUCHOVIČOVÁ, J. Neurodidaktické poznatky v školskej praxi. In : PETLÁK, E. a kol. *Neuropedagogika a vyučovanie*. Nitra: PF UKF, 2010. s.35. ISBN 978-80-8094-744-6.
2. DUCHOVIČOVÁ, J. Psychodidaktika. In: Kolektív autorov. *Vybrané kapitoly z didaktiky pedagogiky a sociálnej pedagogiky.* Nitra : PF UKF, 2011. s. 218 – 229. ISBN 978-80-8094-857-3.
3. FENYVESIOVÁ, L. Vyučovacie metódy a interakčný štýl učiteľa. Nitra: UKF, 2006. 151 s. ISBN 80-8050-899-2.
4. GUILD, P.B. 2001. *Diversity, learning style and culture.* [online], [cit. 25.3.2013]. Dostupné na internete: <http://education.jhu.edu/PD/newhorizons/strategies/topics/Learning%20Styles/diversity.html>
5. KALISKÁ, L. *Učebné štýly vo vzťahu k inteligencii, tvorivosti a školskej úspešnosti.* Dizertačná práca. Nitra: FSVaZ Nitra. 2008.
6. KALISKÁ, L. *Koncepcia učebných štýlov so zameraním na teóriu D. A. Kolba*. Banská Bystrica: OZ Pedagóg PF UMB. 2009. ISBN 978-80-8083-827-0.
7. KOSÍKOVÁ, V. *Psychologie ve vzdelávaní a její psychodidaktické aspekty*. Praha: Grada. 272 s. 2011. ISBN 978-80-247-2433-1.
8. LOJOVÁ, G. Individuálne osobitosti pri učení sa cudzích jazykov. In: *Niektoré psychologické aspekty učenia sa a vyučovania cudzích jazykov*. Bratislava. Univerzita Komenského, 2005. 200 s. ISBN 80-223-2069-2.
9. MAREŠ, J. Strukturování učiva, vyučovací a učební strategie In: ČÁP, J. - MAREŠ, J. *Psychologie pro učitele.* Praha. Portál. 1998. ISBN 80-7178-463-X.
10. MAREŠ, J. *Štýly učení žákú a studentú*. Praha. Portál. 1998. s.239. ISBN 807178-246-7.
11. PETLÁK, E., VALÁBIK, D., ZAJACOVÁ, J. *Vyučovanie – mozog – žiak.* Bratislava: IRIS. 2009. ISBN 978-80-89256-43-3.
12. PIAGET, J. *The psychology of intelligence. České vydanie Psychologie inteligence.* Praha : Portál. 1972. ISBN 80-7178-309-9.
13. RIDING, R. – RAYNERA, S. *Cognitive Styles and Learning Stategius*. London: David Fulton Publisk. 2009. 217 s. ISBN 1-85346-480-5. 58
14. ŠKODA, J. – DOULÍK, P. *Psychodidaktika*. Praha: Grada Publishing. 2011. 208 s. ISBN 978-80-247-3341-8.
15. THAGARD. P. *Úvod do kognitivní vědy.* Praha: Portál. 2011. 231 s. ISBN 80-7178-445-1.
16. TUREK, I . *Didaktika*. Bratislava: Iura Edition. 2008. s.959. ISBN 978-80-8078-198-9.
17. TUREK, I. Učebné štýly a rozvoj schopnosti žiakov učiť sa. Banská Bystrica: Metodicko – pedagogické centrum. 2002. ISBN 80-8041-423-8.
18. VYGOTSKIJ, L. S. *Mind in society : The development of higher psychological processes.* Cambridge, MA: Harvard Univerzity Press. 1978.
19. ZAŤKOVÁ, T. Inteligencie a učebné štýly žiakov – predpoklad optimalizácie edukačného procesu. In Petlák a kol. Kapitoly zo súčasnej edukácie. Bratislava: IRIS. 2011. ISBN 978-80-89256-62-4.

Kontaktní údaje

PhDr. Denisa Gunišová, PhD.
PaedDr. Nina Kozárová
Univerzita Konštantína Filozofa v Nitre, Pedagogická fakulta
Dražovská cesta 4, 949 74 Nitra
Tel: +421 37 6408 238
email: dgunisova@ukf.sk
email: nina.kozarova@ukf.sk

KOMPARÁCIA SOCIÁLNEJ STAROSTLIVOSTI O DETI A MLÁDEŽ NA ÚZEMÍ SLOVENSKA PRED A PO SKONČENÍ DRUHEJ SVETOVEJ VOJNY

COMPARISON ON CHILDREN AND YOUTH SOCIAL CARE BEFORE AND AFTER THE WORLD WAR II IN SLOVAKIA

Ivana Šuhajdová

Abstrakt

Príspevok porovnáva poskytovanie sociálnej starostlivosti deťom a mládeži na slovenskom území pred začatím druhej svetovej vojny, v jej priebehu ako i po jej skončení, a to konkrétne do roku 1968. Prioritným cieľom príspevku je poukázať na zmeny postavenia samotného štátu v sociálnych otázkach slovenských detí a mládeže vo vymedzenom časovom období.

Kľúčové slová: *dieťa, mládež, sociálna starostlivosť, štát, národné výbory, druhá svetová vojna*

Abstract

Providing of children and youth social care before, during and after the World War II up to 1968 on Slovak territory is compared in this paper. The priority aim of this paper is to show the changes in state functions in social issues affecting Slovak children and youth in defined period.

Key words: *child, youth, social care, state, national committees, the World War II*

Úvod

Mohli by sme povedať, že druhá svetová vojna predstavuje doposiaľ najväčší vojnový konflikt v dejinách ľudstva. Na území Slovenska žilo, či už pred druhou svetovou vojnou, v jej priebehu ako i po jej skončení početné detské a mládežnícke zastúpenie, ktoré si vyžadovalo značnú pozornosť, sociálnu starostlivosť či rôzne formy pomoci.

Z historického hľadiska môžeme pozorovať, že starostlivosť o deti a mládež tvorila dôležitú súčasť sociálnej starostlivosti zo strany spoločnosti, avšak s konštatovaním, že zatiaľ čo pred druhou svetovou vojnou prevládala v spoločnosti dobrovoľná starostlivosť o deti a mládež, ktorá bola zo strany štátu podporovaná predovšetkým finančne, tak po skončení druhej svetovej vojny už môžeme hovoriť o prevládajúcej štátnej sociálnej starostlivosti.

1 Sociálna starostlivosť o deti a mládež na území Slovenska pred druhou svetovou vojnou

Pred druhou svetovou vojnou do štátnej starostlivosti o deti a mládež patrili predovšetkým štátne detské domovy a štátne ústavy pre telesnú, duševnú alebo v tom období nazívanú mravne defektnú mládež, ktoré vydržiaval štát v rezorte Povereníctva sociálnej starostlivosti. Ako však uvádzajú Ideove-vedecké a organizačné základy našej starostlivosti o mládež a rodinu (1940) v medzivojnovom období ako i v čase druhej svetovej vojny, prenechával štát najširšie pole starostlivosti o deti, mládež a rodinu na dobrovoľnú starostlivosť. Do roku 1945 existovalo na slovenskom území viacero väčších i menších dobrovoľných spolkov a organizácií, ktoré sa venovali sociálnej starostlivosti. Druhou formou pomoci v tomto období tak bola dobrovoľná starostlivosť, ktorá mala charakter spolkových organizácii.

Sociálna starostlivosť o deti a mládež mala vo všeobecnosti pred druhou svetovou vojnou a v jej priebehu verejný, súkromný a cirkevný charakter. Jednou z najväčších dobrovoľných organizácií bolo Slovenské ústredie starostlivosti o mládež s pridruženými Okresnými starostlivosťami o mládež, ktoré fungovali až do konca roku 1947.

1.1 Činnosť Okresných starostlivostí o mládež

Najväčší podiel na realizovaní dobrovoľnej starostlivosti o deti a mládež mali Okresné starostlivosti o mládež, ktoré podľa J. Šimonoviča (1978) vznikli na slovenskom území v 30. rokoch minulého storočia, pričom ako hlavné ciele svojej činnosti uvádzali:

- viesť evidenciu deti, ktoré potrebovali ochranu a pomoc,
- umiestňovať opustené deti na výchovu do rodín,
- starať sa o poradne, jasle, opatrovne, sirotince,
- umiestňovať opustené deti a nesprávne vychovávané deti do rozličných ústavov,
- podporovať úrady v ich sociálnych úlohách,
- poskytovať dospievajúcim deťom radu a pomoc vo voľbe povolania,
- či inými spôsobmi sa starať o riadnu duševnú a telesnú výchovu tých detí, ktoré potrebovali pomoc.

Podľa stanov Okresnej starostlivosti o mládež (1930) týmto spolkom menovite náležalo:

1. prebúdzať, vychovávať, prehlbovať a šíriť porozumenie a záujem pre úlohy sociálnej starostlivosti o mládež slovom a tlačou nielen u povolaných činiteľov verejných, ale zvlášť v širokých vrstvách ľudových,
2. zabezpečovať, aby boli v evidencii vedené všetky zariadenia sociálnej starostlivosti o mládež v okrese, dáta o rozsahu, pohybe a stave ich činnosti,
3. vyhľadávať deti, ktoré potrebovali z akýchkoľvek príčin ochranu a pomoc, viesť ich v evidencii, podávať príslušným a verejným orgánom žiadosti, správy a návrhy na poskytnutie potrebnej pomoci a zabezpečiť, aby sa im dostalo náležitého zaopatrenia a výchovy v prvom rade od tých, ktorí sú k tomu podľa zákona povinní,
4. mať v evidencii rodiny ochotné a spôsobilé prevziať cudzie detí do svojej starostlivosti, vzbudzovať pochopenie a záujem pre tento spôsob starostlivosti o mládež a takýmto rodinám zverovať deti, ktorým sa nedostáva starostlivosti vlastnej rodiny. Zvlášť tých, ktorí sú inak telesne a duševne zdravé a sú odkázané na cudziu starostlivosť len pre svoju chudobu, osirelosť alebo opustenosť,
5. dozerať, aby rodiny, ktoré vychovávajú cudzie deti si plnili povinnosti, ktoré na seba prevzali,
6. starať sa, aby v okrese podľa potreby boli vybudované a vydržiavané zariadenia nutné k riadnemu výkonu sociálnej starostlivosti o deti v dobe od narodenia až do času, keď verejnej ochrany a pomoci už nepotrebujú, spravidla do 18 rokov. Jednalo sa predovšetkým o zariadenia ako boli poradne a útulky pre matky a kojencov, opatrovne, materské škôlky, sirotince, detské domovy, rodinné kolónie, jasle, útulky a pod.,
7. poskytovať deťom vychádzajúcim zo školy radu pri voľbe povolania a vyhľadávať im vhodných zamestnávateľov,
8. podnikať aj rodinné preventívne opatrenia, ktorými by bolo zabraňované všetkému, čo by mohlo akokoľvek ohrozovať zdravý vývin mládeže po stránke telesnej, rozumovej alebo mravnej (Stanovy okresnej pečlivosti o mládež, 1930).

Ako uvádza I. Šuhajdová (2015) Okresná starostlivosť o mládež získavala na všetky vyššie uvedené činnosti finančné prostriedky z členských príspevkov, z výťažku spolkových podnikov, zbierok, prednášok a z výnosu vlastného imania, z podpôr, darov a odkazov korporácií aj súkromných osôb či z podpôr obcí, okresov alebo samotného štátu. Znamená to,

že štát sa na činnosti Okresných starostlivostí o mládež pred druhou svetovou vojnou a v jej priebehu podieľal finančne.
Ak sa pozrieme bližšie na konkrétne činnosti, ktoré Okresné starostlivosti o mládež realizovali potom musíme spomenúť:
1) *Poradne pre matky a deti* – ich hlavným cieľom bolo zníženie dlhodobo vysokej detskej úmrtnosti. Nástrojmi na jej dosiahnutie bola poskytovaná starostlivosť nielen už narodením deťom, ale i ženám počas tehotenstva. V rámci primárnej prevencie sa jednalo o výchovné pôsobenie na mladé dievčatá ako potencionálne budúce matky. Podľa Zprávy o činnosti Zemského ústredia pečlivosti o mládež na Slovensku za rok 1932 (1933), postupovali poradne pri poskytovaní sociálno-zdravotnej starostlivosti veľmi systematicky, pričom každý prípad bol evidovaný v jednej z troch nasledovných skupín:

1. prípady, ktoré potrebovali pomoc v podobe sústavnej kontroly poradne – týkalo sa to najjednoduchších prípadov, kedy riziko sociálneho ohrozenia dieťaťa bolo najmenšie,
2. prípady, ktoré mohli zostať vo svojom sociálnom prostredí, ale okrem kontroly poradní potrebovali aj ďalšiu pomoc či ochranu, napr. právnu, hmotnú, ošatenie, stravovanie, lieky a pod.,
3. prípady, ktoré z hľadiska vysokého zdravotného, hospodárskeho či mravného rizika nemohli ďalej zostať vo svojom prirodzenom prostredí. Jednalo sa o najzávažnejšie prípady, ktoré si vyžadovali najväčšiu pozornosť a pomoc.

2) *Stravovacie a ošacovacie akcie* – ich význam cítilo obyvateľstvo predovšetkým v zimných mesiacoch. Obidve akcie boli určené deťom, ktoré žili vo vlastných rodinách, avšak podmienky ich rodinného prostredia neboli z hospodárskeho hľadiska dostačujúce. Prostredníctvom stravovacej akcie dostávali chudobné deti zdarma minimálne jeden krát denne teplú stravu formou výživnej polievky alebo vareného či pasterizovaného mlieka s chlebom, a to buď pred vyučovaním alebo počas prestávok (Správa – Štátna ošacovacia a stravovacia akcia na Slovensku, 1923).
3) *Poradne pre voľbu povolania* – cieľovou kategóriou bola dorastajúca mládež a starostlivosť o jej sociálno-zdravotnú stránku, ktorá sa realizovala formou poradenstva pri voľbe školy alebo povolania, ako i výchova a dozor mládeže mimo pracovnú dobu, poskytovanie oblečenia, ubytovania a ošatenia pre najchudobnejších.
Okrem uvedených aktivít treba spomenúť, že do činnosti Okresných starostlivosti o mládež patrili aj Okresné detské domovy, ktoré zabezpečovali starostlivosť o deti opustené a nechcené ako i starostlivosť o deti s postihnutím.

2 Sociálna starostlivosť o deti a mládež na území Slovenska po druhej svetovej vojne

Od 1. januára 1948 boli Okresné starostlivosti o mládež podľa Zákona č. 48/1947 o organisaci péče o mládež zrušené a ich činnosti prevzali národné výbory (miestne, okresné a dodatočne aj krajské). Znamená to, že ešte dva roky po skončení druhej svetovej vojny bola na slovenskom území prevládajúca dobrovoľná forma sociálnej starostlivosti o deti a mládež. Zmenu priniesol až vyššie uvedený zákon. Národné výbory pritom vznikli už v roku 1945, pričom ich činnosť bola upravená smernicou Povereníctva pre veci vnútorné č. 339/1944/II. z 29. septembra 1944. Zároveň v zmysle nariadenia SNR č. 29/1945 Zb.z. zo 7. apríla 1945 sa ustanovil pre každú obec miestny národný výbor a pre každý okres okresný národný výbor, ktorý prevzal kompetencie bývalého okresného úradu, okresného zastupiteľstva a okresného náčelníka (Košický vládny program, 1978). Účinnosť národných výborov zabezpečil Košický vládny program vyhlásený 5. apríla 1945 v Košiciach.
Hoci teda môžeme pozorovať, že Okresné starostlivosti o mládež fungovali ešte dva roky pos skončení druhej svetovej vojny a až začiatkom roka 1948 boli nahradené národnými výbormi, legislatívne upravenie konrkétnych úloh a kmpetencií národných výborov v oblasti sociálnej

starostlivosti o deti a mládež priniesol až Zákon č. 59/1964, ktorý poukázal na nasledovné úlohy národných výborov:

- zabezpečovať všetkým deťom potrebnú starostlivosť pre ich všestranný telesný a duševný rozvoj ako i poskytovať pomoc pri uplatňovaní daných práv,
- vytvárať podmienky, ktoré umožnia alebo uľahčia rodičom a iným osobám zodpovedným za výchovu riadny výkon starostlivosti o deti, najmä budovaním predškolských a mimoškolských výchovných zariadení ako i zriaďovanie takých služieb, ktoré uľahčia starostlivosť o deti predovšetkým zamestnaným matkám,
- vhodnými výchovnými a vzdelávacími prostriedkami pôsobiť nielen na správanie detí, ale i na konanie osôb zodpovedných za ich výchovu, učebné a pracovné podmienky tak, aby tieto osoby riadne plnili svoje povinnosti voči deťom a boli pre nich dobrým príkladom. Pri tomto pôsobení sa mali využívať predovšetkým národnými výbormi riadené osvetové a kultúrne zariadenia,
- predchádzať ujmám, ktoré by niektoré deti mohli utrpieť v rodinách, na pracoviskách alebo v miestach, kde trávia svoj voľný čas,
- osobitnú pozornosť venovať ochrane detí pred škodlivými vplyvmi,
- pri plnení úloh úzko spolupracovať so školami, štátnymi orgánmi, s Revolučným odborovým hnutím, s Československým sväzom mládeže a s ostatnými spoločenskými a hospodárskymi organizáciami,
- komisie a odbory národných výborov vo veciach detí majú úzko spolupracovať so školskou a kultúrnou komisiou (komisiou starostlivosti o deti).

Uvedený zákon presne definoval úlohy miestnych, okresných a krajských národných výborov v oblasti sociálnej starostlivosti o deti a mládež.

Záver

V medzivojnovom období ako i v čase druhej svetovej vojny boli otázky týkajúce sa sociálnej starostlivosti o deti a mládež riešené nielen štátom ale i viacerými dobrovoľnými spolkami a organizáciami. Sociálna starostlivosť o deti a mládež tak mala verejný, súkromný a cirkevný charakter. Zmena nastala prijatím Zákona č. 48/1947, ktorým akákoľvek sociálna starostlivosť o deti, mládež a rodinu spadala do štátnej moci a to prostredníctvom národných výborov (miestnych, okresných, krajských). Viaceré organizácie ako napr. vyššie popísané Okresné starostlivosti o mládež, ktoré dovtedy fungovali na báze dobrovoľnosti a zo strany štátu boli v rámci niektorých aktivít len finančne podporované, zanikli.

Po druhej svetovej vojne tak zmeny v oblasti sociálnej starostlivosti o deti a mládež nastali predovšetkým v jej poskytovateľovi, po obsahovej stránke sa jednalo o veľmi podobné činnosti, ktoré boli poskytované deťom a mladým ľuďom tak pred druhou svetovou vojnou, v jej priebehu ako aj po jej skončení. Samozrejme v každej dobe a každému jednému dieťaťu sa poskytoval taká forma sociálnej starostlivosti a pomoci, ktorý vychádzala z jeho životných potrieb a nedostatkov.

Príspevok je súčasťou riešenia projektu VEGA 1/0038/17 Pedagogické myslenie, školstvo a vzdelávanie na Slovensku v rokoch 1945 až 1989.

Použitá literatúra

1. ŠIMONOVIČ, J. *Štátny okresný archív v Trnave. Sprievodca po fondoch a zbierkach.* Nitra : Archívna správa MV SSR. 1978. s. 289.
2. ŠUHAJDOVÁ, I. Činnosť okresnej starostlivosti o mládež v Trnave a jej okolí v rokoch 1940-1945. In KUDLÁČOVÁ, B. a kol.: Pedagogické myslenie a školstvo na Slovensku v rokoch 1939-1945. Trnava: Typi Universitatis Tyrnaviensis, spoločné

pracovisko Trnavskej univerzity v Trnave a VEDY, vydavateľstva Slovenskej akadémie vied, s. 163 – 178.
3. Košický vládny program. Bratislava: Nakladateľstvo Pravda, 1978.
4. Zákon č. 48/1947 Zb.z. o organisaci péče o mládež
5. Zákon č. 59/1964 Zb.z. o úlohách národných výborov pri starostlivosti o deti
6. Ideove-vedecké a organizačné základy našej starostlivosti o mládež a rodinu (1940). Slovenský národný archív.
7. Stanovy okresnej pečlivosti o mládež. Bratislava : „Universum“, 1930
8. Organizačný a pracovný poriadok Poradne pre voľbu povolania – pri okresných starostlivostiach o mládež na Slovensku. Zemské ústredie pečlivosti o mládež na Slovensku : Bratislava
9. Zpráva o činnosti Zemského ústredia pečlivosti o mládež na Slovensku za rok 1932 (1933)
10. Správa – Štátna ošacovacia a stravovacia akcia na Slovensku (1923).

Kontaktné údaje

PhDr. Ivana Šuhajdová, PhD.
Katedra pedagogických štúdií
Pedagogická fakulta, Trnavská univerzita
Priemyslená 4
918 43 Trnava
email: ivasuhajdova@gmail.com

VÝCHOVNÝ ŠTÝL A APLIKÁCIA HODNOTENIA V RODINNEJ VÝCHOVE

EDUCATIONAL STYLES AND APPLICATION OF EVALUATION IN FAMILY EDUCATION

Lujza Koldeová

Abstrakt

V príspevku sa zaoberáme výchovným štýlom rodičov a aplikáciou pozitívneho a negatívneho hodnotenia. Východiskom sú základné výchovné štýly v rodinnej výchove a ich pôsobenie na osobnosť dieťaťa z hľadiska odmien a trestov. V príspevku prezentujeme výsledky výskumu zameraného na hodnotenie v rodinnej výchove v Slovenskej republike pri porovnaní s Nemeckou spolkovou republikou.

Kľúčová slova: *výchovný štýl, rodina, rodinná výchova, pozitívne hodnotenie, odmeny, negatívne hodnotenie, tresty*

Abstract

This article deals with the parenting style and application of positive and negative evaluation of behavior. It provides an overview of basic educational styles in the family education and their influence on the personality of the child from point of view of rewards and punishments. In the paper we present the results of research focused on evaluation in family education in the Slovak republic compared to the Federal Republic of Germany.

Key words**:** *educational style, family, family education, positive evaluation, rewards, negative evaluation, punishments*

1. ÚVOD

Hodnotenie správania a konania je nevyhnutnou súčasťou výchovy. Prejavením súhlasu, resp. vyjadrením nespokojnosti s istým typom správania dávajú rodičia deťom najavo súlad, resp. nesúlad ich správania so stanovenými požiadavkami. Dieťa potrebuje spätnú väzbu od rodičov z emocionálnych i osobnostných dôvodov, pretože dieťa musí poznať dôsledky svojho správania a konania z dôvodu realizácie budúceho správania.

Rodičia pri výchove uplatňujú a využívajú rôzne metódy a formy hodnotenia od pohladenia, prikývnutia, udelenia materiálneho daru až po ignorovanie, zákazy alebo fyzické tresty. Výber a uplatnenie jednotlivých foriem a druhov pozitívneho a negatívneho hodnotenia je súčasťou pôsobenia vychovávateľa na vychovávaného a nazýva sa výchovný štýl. Všeobecne sa výchovný štýl definuje ako súhrn intencionálnych i funkcionálnych spôsobov správania vychovávateľa k vychovávanému. Výchovný štýl predstavuje relatívne stabilný postoj a prístup rodičov k dieťaťu, ktorý sa prejavuje v rôznorodých spôsoboch správania a situáciach vo vzájomných vzťahoch. (Průcha et al, 2009)

Rodičia pri výchovnom pôsobení na dieťa vedome i intuitívne dodržiavajú základné princípy výchovy v kontexte stanovených výchovných cieľov. Neraz sa zamýšľajú nad tým, ktorý výchovný štýl majú v danej situácii uplatniť a celkovo zvažujú, ako dieťa najlepšie vychovávať. Neraz si kladú otázku, či majú deti vychovávať prísnejšie, alebo im poskytnúť výraznejšiu voľnosť.

Výchovný štýl ovplyvňujú viaceré činitele a podmienky. Jeden z hlavných determinantov predstavuje osobnosť vychovávateľa, jeho charakter, temperament, zrelosť, vek, psychické zdravie, ako aj skúsenosti s vlastnou výchovou. Často ide o nezámerné preberanie a uplatňovanie výchovných tendencií, hoci výchovné pôsobenie rodičov môže byť realizované aj zámernými vplyvmi. (Belsky, 1984)

Medzi ďalšie významné faktory, ktoré ovplyvňujú výchovné pôsobenie rodičov zaraďuje Belsky (1984) aj osobnosť dieťaťa, hlavne jeho temperament a inteligenciu. V realite spätnej väzby deti nie sú len pasívne objekty výchovného pôsobenia, ale aktívne reagujú na požiadavky a správanie rodičov. V prípade potreby môžu rodičia na základe vyhodnotenia reakcií dieťaťa modifikovať svoje ďalšie výchovné pôsobenie. Novšie výskumy poukazujú na výrazný vplyv vzájomnej súhry medzi osobnosťou dieťaťa a osobnosťou rodičov na výchovu. (Asisi, 2015)

Výchovný štýl rodičov je determinovaný aj pohlavím dieťaťa. Výskum realizovaný na výskumnej vzorke detí vo veku 4 až 6 rokov zistil, že matky, ktoré majú dcéry uplatňujú vo výchove častejšie odmeny ako tie matky, ktoré majú synov. V oblasti aplikácie trestu ako výchovnej metódy neboli zistené žiadne signifikantné rozdiely, t.j. chlapci neboli častejšie trestaní ako dievčatá. (Schreyer – Mehlhop, Petermann, In: Asisi, 2015)

Na výchovný štýl rodičov má vplyv aj rôznorodé prostredie, konkrétne spoločenskohistorické, ekonomické, kultúrne prostredie, výchovné tradície krajiny, obdobia a konkrétnej rodiny. Z nepriamo pôsobiacich činiteľov sa vyzdvihuje hlavne socioekonomická situácia rodiny, zamestnanosť a spokojnosť rodičov so zamestnaním. (Asisi, 2015)

V pedagogike rozoznávame rôzne typológie výchovných štýlov. Jednou z najznámejších je typológia podľa Kurta Lewina (Bründler, 2004), ktorý na základe výskumov rozlíšil základné štýly výchovy:

Autoritatívny výchovný štýl

Prejavuje sa nadradeným správaním rodičov vo vzťahu k dieťaťu v zmysle stanovenia jednoznačných pravidiel a vyžadovania ich striktného dodržiavania. Medzi základné znaky autoritatívneho štýlu výchovy patrí prísna kontrola, rozkazy, príkazy, zákazy, tresty, kritika, vyhrážanie sa. Rodičia vyžadujú absolútnu poslušnosť, disciplínu a akékoľvek prejavy neposlušnosti trestajú. Deti nemôžu o ničom rozhodovať, ich individualita a potreby sú negované. Emocionálny vzťah rodičov a detí je veľmi chladný, rodičia prejavujú len málo porozumenia pre potreby a záujmy detí. (Hock, 2008)

Autoritatívny výchovný štýl má negatívny vplyv na osobnosť dieťaťa, jeho dôsledkom môže byť veľmi nízke sebavedomie a sebadôvera dieťaťa, neistota v rôznych oblastiach života, konformita, pasivita, introverzia, hanblivosť, pocity nedostatočnosti alebo submisia. (Herbert, 1991)

Liberálny výchovný štýl

Rodičia uplatňujúci liberálny štýl deti usmerňujú a riadia len minimálne, prípadne vôbec, nekladú žiadne priame požiadavky a neurčujú hranice správania. Ak majú požiadavky, tak sú kladené nepriamo a nevyžadujú sa ich dôsledné plnenie. Kontrola dodržiavania požiadaviek je minimálna, deti majú absolútnu slobodu a voľnosť bez obmedzovania ich aktivity a iniciatívy. (Hock, 2008)

V tomto výchovnom prístupe je znížená miera emocionálneho vzťahu medzi rodičmi a deťmi prejavovaná v podobe lásky, citov a pozornosti. Rodičia sa snažia vyhýbať konfliktným situáciám, nevyžadujú spoluprácu detí, avšak výrazne podporujú ich nezávislosť. Správanie detí hodnotia rodičia súhlasnými, akceptujúcimi a netrestajúcimi spôsobmi výchovy. Aplikáciu liberálneho štýlu rodičia odôvodňujú snahou o vytvorenie optimálnych podmienok pre dieťa a jeho rozvoj. (Procházka, 2012)

Deti vychovávané liberálnym štýlom majú sklony k prudkým emocionálnym reakciám z dôvodu minimálnej vnútornej sebaregulácie. Podľa názoru odborníkov minimálna starostlivosť môže mať na deti viaceré negatívne dôsledky, ako nedostatok sebaistoty, sebaovládania alebo zmätok. (Ferrero, 2004)

Demokratický (sociálno - integračný) výchovný štýl

Demokratický výchovný štýl sa vyznačuje rovnocenným partnerským vzťahom rodičov a detí. Rodičia podporujú iniciatívu, samostatnosť a sociálnu zodpovednosť detí. Dieťa má primeranú voľnosť a rodičia spoločne s dieťaťom určujú potrebné limity správania, ktoré však nevychádzajú z moci a nadradenosti rodičov, ale zo vzájomnej dohody, pričom rodičia akceptujú aj názory a dôvody rozhodnutí detí.

Základnými znakmi demokratického štýlu je preferovanie pozitívnych všeľudských hodnôt, láska, kooperatívne konanie, vzájomná úcta, pochopenie, empatia, diskusia, spoločné stanovenie a dodržiavanie pravidiel správania. (Herbert, 1991)

Rodičia uplatňujúci demokratický štýl s deťmi veľa diskutujú a povzbudzujú ich k vyjadreniu vlastných názorov. Pri nevhodnom správaní dieťaťa rozlišujú medzi správaním a osobnosťou. Celkovo rodičia rešpektujú individualitu dieťaťa a využívajú viac odmeny ako tresty. Ich zámerom je snaha o rovnováhu medzi požiadavkami a slobodou za dodržania prirodzenej autority. (Procházka, 2012)

Podľa Huppertza-Schinzlera (1995) demokratická výchova tu prebieha v zmysle rovnoprávnosti a rešpektovania hodnoty oboch osôb – vychovávateľa i vychovávaného. Deti vychovávané demokratickým štýlom sú vyrovnanejšie, sebavedomejšie, zriedkavo trpia depresiami, sú menej ustráchané, s nižším potenciálom agresivity a výchovných problémov.

2. EMPIRICKÁ ČASŤ

Výskum zameraný na problematiku hodnotenia v rodinnej výchove sme realizovali v priebehu rokov 2003-2005, 2011-2012 a 2017. Výskum sme realizovali v dvoch krajinách: v Slovenskej republike (SR) a Nemeckej spolkovej republike (NSR). Pre tieto krajiny sme sa rozhodli z dôvodu uplatňovania rozdielnych štýlov výchovy. V NSR na rozdiel od SR prevláda vo výchove viac liberálny štýl s preferovaním voľnejšej výchovy a výraznou autonómiou detí, rodičia tu celkovo trávia s deťmi menej času, odmeny i tresty sa tu uplatňujú zriedkavejšie ako v SR. V NSR bol v roku 2000 schválený zákon o nenásilnej výchove zakazujúci rodičom vo výchove uplatňovať všetky formy fyzického i psychického násilia.

Výskumné ciele

Náš výskum bol zameraný na nasledovné ciele:

- Zistiť preferenciu aplikácie odmien a trestov v rodinnej výchove.
- Porovnať udeľovanie odmien a trestov v rodine z hľadiska pohlavia rodičov.
- Zistiť názory rodičov na efektívnosť aplikácie odmien a trestov vo výchove.

Výskumná vzorka

Tabuľka 1: Počet rodičov

	SR		NSR	
Pohlavie rodičov	**n**	**%**	**n**	**%**
ženy	179	56,3	104	56,5
muži	139	43,7	80	43,5
spolu	318	100,0	184	100,0

Počet rodičov nášho výkumného súboru zo Slovenska bol 318, z toho 56,3% žien a 43,7% mužov. V NSR mali podobne miernu prevahu ženy 56,5% oproti 43,5% mužov.

2.1 Preferencia aplikácie odmien a trestov z hľadiska pohlavia



Diagram 1: Aplikácia odmien a trestov

V oboch skúmaných krajinách, na Slovensku 48,5% a v Nemecku až 63%, aplikujú odmeny najčastejšie matka i otec rovnakou mierou. Pri porovnaní aplikácie matkou a otcom sme zistili, že matky s 37,7% v SR a 31,5% v NSR odmeňujú deti častejšie ako otcovia – v SR 13,8% a len 5,5% v NSR. Za osobu, ktorá najčastejšie trestá je považovaná, ako na Slovensku, tak aj v Nemecku matka. Až 45,3% respondentov zo SR a 48,9% respondentov z NSR uviedlo túto skutočnosť. Rovnakou mierou trestá 34% slovenských a 35,9% nemeckých rodičov. Otca ako trestajúcu autoritu spomenulo 20,7% slovenských a 15,2% nemeckých rodičov.

V predstavách mnohých ľudí je matka tá, ktorá deti vychováva, chráni a opatruje. Postava otca sa tradične spája s prísnosťou a trestaním. Avšak pre dnešnú rodinu je charakteristické zrovnoprávnenie oboch partnerov a ich spoluzodpovednosť za výchovu detí. V súčasnosti sa stáva zriedkavejšie, že pozícia matky je v rodine slabá a otec je trestajúcou autoritou. Môže to vyplývať i z toho, že matka trávi omnoho viac času s deťmi ako otec.

Materinská láska je iná ako láska otcovská. Matka miluje svoje dieťa bez ohľadu na to, aké je, má ho rada, pretože existuje. Svoju lásku dáva dieťaťu najavo tým, že ho častejšie odmeňuje. Láska otcovská je podmienená a ako píše Fromm (1989) riadi sa princípom „Milujem ťa, lebo plníš moje očakávania, pretože konáš svoju povinnosť, lebo si také, ako ja."
Ako vyplynulo z ďalších výsledkov výskumu, matky odmeňujú deti prevažne emocionálnymi formami odmien, slovne, ocenením a pohladením. Častokrát sú matky viac citovo naviazané na deti a dávajú im denne najavo svoju lásku. Otcovia uviedli, že odmeňujú prevažne finančne alebo materiálnymi darmi. Rola otca je nepostrádateľná, pretože deťom dáva modely citového a sociálneho správania. Matka i otec avšak nepôsobia len ako predstavitelia svojich rolí, ale aj ako osobnosti, individuality s určitými postojmi a hodnotovými systémami.
Pri pozitívnom i negatívnom hodnotení je dôležité, aby odmeny, ale hlavne tresty dieťa dostávalo od osoby, ku ktorej má pozitívny postoj. Len tak môžu tresty viesť k trvalejším zmenám v správaní. Tresty od osôb, ku ktorým má dieťa negatívne vzťahy menia jeho správanie len dočasne a len vo vzťahu k tejto osobe. Vo výchove je dôležité, aby sa rodičia v

názoroch a cieľoch zhodovali. V rodinách, v ktorých prevláda nejednostnosť rodičov, môže dôjsť k dezorientácii dieťaťa vo vzťahu k požiadavkám rodičov.

2.2 Účinnosť odmien a trestov



Diagram 2: Účinnosť odmien a trestov

Väčšina oslovených rodičov, až 68,4% zo SR a 63% z NSR považuje odmeny za účinné výchovné metódy. Rodičia zdôraznili väčší motivačný účinok slovných ocenení a pochvál, ako materiálne odmeňovanie a prehnané zahrnovanie dieťaťa materiálnymi darmi a financiami. Odmeny motivujú deti k lepšiemu správaniu a výkonom v škole, povzbudzujú ich k pozitívnemu konaniu a zvyšujú ich sebavedomie a sebahodnotenie.

Odmeny a odmeňovanie sú súčasťou správnej výchovy. Dieťa chápe odmenu ako prejavenie záujmu matky alebo otca o jeho osobnosť, správanie a konanie. Odmena mu potvrdzuje, že rodičom na ňom záleží, že im nie je ľahostajné. Deti potrebujú spätnú väzbu, potvrdenie správnosti svojho konania. Dieťa musí poznať dôsledky svojich rozhodnutí a odmeny ho usmernia tým správnym smerom.

Respondenti ďalej uviedli, že odmeny sú potrebné predovšetkým pre plnohodnotný a zdravý vývin detskej psychiky a pre komplexný rozvoj osobnosti dieťaťa. Odmeny podporujú u detí rozvoj mnohých pozitívnych mravných hodnôt a vlastností, ako ctižiadostivosť, trpezlivosť, ochotu pomáhať.

Pre 31,6% oslovených rodičov zo Slovenska nepredstavujú odmeny účinnú metódu výchovy a neaplikujú ich vôbec, respektíve minimálne. Podobné negatívne stanovisko zastáva i 37% respondentov z NSR. Ak má byť odmena účinná, musí byť primeraná veku a vyspelosti dieťaťa a správaniu alebo určitej činnosti. V súčasnosti mnohé rodiny preferujú často materiálne a finančné odmeny, hoci väčší účinok zvyčajne má slovné ocenenie, slovná pochvala.

Respondenti svoje odpovede zdôvodňujú, že odmeny nie sú potrebné, sú zbytočné. Nežiaducim dôsledkom prehnaného odmeňovania môže byť návyk dieťaťa na odmenu a nedostatok vnútornej motivovanosti a zaujatosti pre isté správanie alebo činnosť. Pri nesprávnom udeľovaní odmien sa môže prejaviť negatívny účinok odmeňovania – návyk na odmenu. Tak bude vôľa a samostatné rozhodovanie dieťaťa o tom, čo má robiť, alebo ako sa má správať ovplyvňované vonkajšími odmenami.

Pomerne veľa, až 54,8% respondentov zo Slovenska a 66,3% z Nemecka, nepovažuje tresty za účinnú výchovnú metódu. Zdôvodnili to tvrdením, že tresty nevyriešia problémové situácie, pretože nimi možno nevhodné správanie len zastaviť, ale trestom sa nenavodia zmeny v správaní a konaní. Trest priťahuje pozornosť k nežiaducemu správaniu, ale nezdôrazňuje mravne žiaduce správanie. Dieťa môže reagovať na potrestanie poslušnosťou, avšak táto zmena býva väčšinou len krátkodobá.

Ako ďalšie dôvody nepotrebnosti trestania rodičia uviedli, že rodičia by mali vedieť usmerniť svoje deti bez fyzického alebo psychického potrestania. Dôležitejšie ako tresty je spoločná komunikácia, diskusia a spoločné hľadanie riešení. Nie trestať, ale vychovávať, zdôrazňujú „odporcovia“ trestania z radov rodičov. Veľkú nevýhodu trestu vidia v tom, že potrestanému dieťaťu sa po treste nezdá potrebným vnútorné zhodnotenie svojho správania.

Trest sa má použiť len ako posledný prostriedok výchovy, keď nič iné nepomáha, pripomínajú iní respondenti. Primeraný trest dieťaťu neublíži, upevní jeho charakter a morálne vlastnosti. Ak má mať dieťa rešpekt, musí vedieť, že si nesmie všetko dovoliť.

Tresty motivujú dieťa k tomu, aby sa v budúcnosti vyhlo nevhodnému správaniu, prinášajú mu poučenie do budúcna ohľadom žiaduceho správania, tvrdí 45,2% opýtaných respondentov zo SR a 33,7% z NSR. Tresty predstavujú antimotiváciu k opakovaniu nevhodných činov. Ako tvrdia rodičia ďalej, trest núti dieťa zamyslieť sa nad tým, čo spravilo zle a tým aj k náprave správania. Otázne je, či sa dieťa skutočne nad sebou zamyslí alebo sa zmení len zo strachu pred trestom.

Iná skupina respondentov vidí zmysel trestov v podnietení rešpektu dieťaťa pred rodičmi a oboznámenia sa s hranicami „odkiaľ – pokiaľ“. Správna rodičovská autorita by mala byť založená na princípoch rovnosti a vzájomného rešpektu v zmysle ľudskej ceny a dôstojnosti.

Pre ďalších rodičov predstavujú tresty súčasť správnej výchovy a tvrdia, že bez trestov sa nedá vychovávať. Zdôrazňujú pritom, že ich účinok závisí od toho, či boli uplatnené primerane osobnosti dieťaťa a danému správaniu.

3. ZÁVER

Štýl rodičovskej výchovy má zásadný vplyv na osobnosť dieťaťa, formovanie jeho charakteru a morálne správanie. Príliš autoritatívna, prísna a nadmerne obmedzujúca výchova s použitím častých trestov bez rešpektovania názorov a potrieb dieťaťa bude mať pravdepodobne za následok nízke sebavedomie dieťaťa, uzavretosť, prípadne zvýšenú agresivitu voči iným ľuďom. Naopak, príliš liberálna výchova môže vyvolať u dieťaťa pocit nadradenosti v zmysle voľnosti a zníženej sebakontroly vo všetkých oblastiach života, dieťa môže byť neisté vo viacerých oblastiach a neschopné samostatne zvládať najrôznejšie životné situácie. (Čáp, 1996)

Za najvhodnejší sa považuje sociálno-integračný štýl výchovy založený na demokratických partnerských vzťahoch medzi rodičmi a deťmi a preferovaní pozitívnej výchovy. Znamená to uvedomenie si, že zmena správania nastane skôr vyzdvihnutím kladných stránok osobnosti dieťaťa ako kritikou nežiaduceho správania. Neustále zdôrazňovanie záporných vlastností môže mať za následok stratu viery dieťaťa v seba samé, vo vlastné možnosti a schopnosti a tým aj potenciál zmeny správania. Význam odmien spočíva v ich pozitívnom pôsobení na správanie a konanie dieťaťa, v ovplyvňovaní jeho emocionálnej stránky, determinácii a formovaní jeho hodnotového systému a morálnych postojov. Aplikácia pozitívneho hodnotenia má viaceré pozitívne efekty na osobnosť dieťaťa, uspokojuje jeho potrebu sociálneho uznania, zvyšuje jeho sebavedomie a vyvoláva kladný vzťah rodičov a detí. (Tschöpe - Scheffler, 2004)

Odmeny spravidla vyvolajú v dieťati radosť, vnútorné uspokojenie a zvyšujú jeho sebadôveru. Z týchto dôvodov sa pri výchove odporúča preferovať kladné hodnotenie v podobe aplikácie najrôznejších odmien.

Príspevok bol vytvorený ako súčasť projektu KEGA 026UK-4/2015 Morálne postoje detí a dospelých v rodine a škole: aplikovaný výskum a metodický materiál pre učiteľov, výchovných poradcov a koordinátorov prevencie.

Použitá literatura

1. ASISI, V. 2015. Entwicklungsbedingungen im Kontext der Eltern-Kind-Beziehung. Chancen und Risiken in der Interaktion mit Mutter und Vater. Wiesbaden: Springer VS, 2015. 337 s. ISBN 978-3-658-06914-8.
2. BELSKY, J. 1984. The determinants of parenting: a process model. In: Child development, 1984, roč. 55, č. 1, s. 83-96
3. BRÜNDLER, P et al. 2004. Einführung in die Psychologie und Pädagogik. Zürich: Compendio Bildungsmedien AG, 2004. 218 s. ISBN 978-3-7155-9221-3.
4. ČÁP, J. 1996. Rozvíjení osobnosti a způsob výchovy. Praha: ISV, 1996. 302 s. ISBN 80-85866-15-3.
5. FERRERO, B. 1998. Šťastní rodičia. Banská Bystrica: Don Bosco, 1998. 186 s. ISBN 80-85405-85-7.
6. FROMM, E. 1989. Gesamtausgabe. München: Deutscher Taschenbuch Verlag, 1989. ISBN 3-421-06110-6.
7. HERBERT, M. 1991. Disziplin. 142 s. Bern: Hans Huber Verlag. 142 s. ISBN 3- 456-82064-X.
8. HOCK, M. 2008. Erziehungsstile und ihre Auswirkungen. In: Handbuch der Pädagogischen Psychologie (W. Schneider, M. Hasselhorn), 2008, Göttingen: Hogrefe, s. 491- 500.
9. HUPPERTZ, N. – SCHINZLER, E. 1995. Grundfragen der Pädagogik.Eine Einführung für sozialpädagogische Berufe. Köln: 1995. 384 s. ISBN 978-38-23781-11-0.
10. PROCHÁZKA, M. Sociální pedagogika. Praha: Grada, 2012. 203 s. ISBN 978-80-247-3470-5.
11. PRŮCHA, J . – WALTEROVÁ, E. – MAREŠ, J. 2009. Pedagogický slovník. Praha: Portál, 2003. 322 s. ISBN 80-7178-772-8.
12. TSCHÖPE-SCHEFFLER, S. 2003. Fünf Säulen einer guten Erziehung. In: Psychologie heute, roč. 30, 2003, č. 6, s. 44 – 47.

Kontaktní údaje

PaedDr. Lujza Koldeová, PhD.
Katedra pedagogiky a sociálnej pedagogiky PdF UK
Moskovská 3, 813 34 Bratislava
Tel: 00421-2-50222332
E-mail: koldeova@fedu.uniba.sk

HUDOBNO-EDUKAČNÝ PROGRAM V PODMIENKACH PRIMÁRNEHO VZDELÁVANIA

MUSICAL-EDUCATIONAL PROGRAM IN PRIMARY EDUCATION

Martin Dzurilla, Vladimír Fedorko

Abstrakt

Príspevok zachytáva komplexný pohľad na východiská pri tvorbe a realizácii hudobno-edukačného programu prezentovaného multimédiami. Pozornosť sústreďuje na teoretické determinanty, ktoré vyúsťujú do didaktických inovácií využiteľných pri dosahovaní optimálnych výsledkov v hudobno-výchovných činnostiach žiakov primárneho vzdelávania. Približuje perspektívy hudobnej informatiky a taktiež predkladá možnosti implementácie multimédií do hudobnej edukácie.

Kľúčové slová: *hudobno-edukačný program, primárne vzdelávanie, tvorba, hudobná výchova*

Abstract

Paper describes a comprehensive look at the background in designing and implementing music-educational program presented by multimedia. Attention is focused on theoretical determinants that result into didactical innovations usable in achieving optimal results music-educational activities of primary education pupils. He brings the perspective of music informatics and also he presents possibilities for the implementation of multimedia in music education.

Key words*: music-educational program, primary education, designing, music education*

1 Edukačný program a digitálny obsah vzdelávania

Začiatkom 90-tych rokov 20. storočia takmer neexistovali v školách možnosti či nástroje na tvorbu vlastných multimediálnych obsahov alebo didaktických prostriedkov určených pre vzdelávacie účely. Tieto nástroje mali k dispozícii iba špecialisti a špičkové firmy v oblasti technológií (Zounek 2006). Napriek tomu sa v podmienkach vzdelávania začínali pozvoľna objavovať digitálne obsahy v čoraz väčšej miere. S postupným procesom transformácie škôl sa menili úlohy aj spôsoby ako žiakom sprístupňovať vzdelávací obsah, ktorý vznikal v nových podobách a formách – digitálne učebnice, digitálny obsah, edukačné softvéry a pod. Edukačné softvéry v tomto prípade predstavujú elektronický študijný materiál poskytovaný ako softvérový produkt, ktorý je určený pre interaktívne učenie. V súčasnosti nachádzame v slovenskej i českej odbornej literatúre (Balážová, Bencová, Bobot – Jakubeková – Rurák, Brezina, Fridman a kol., Kalaš a kol., Kochová, Lehotská, Machaj a kol., Nemcová 2014, Prachová a kol., Zounek – Sudický) okrem pojmu edukačný softvér aj ďalšie – pedagogický softvér, didaktický softvér, edukačný multimediálny softvér, edukačný program, výukový program, vyučovací program. Pri analýze obsahových vymedzení jednotlivých pojmov u uvedených autorov je zjavné, že ide o synonymické označenie tej istej problematiky. Prienikom obsahových vymedzení spomenutých autorov môžeme definovať edukačný softvér (program) nasledovne. Edukačný softvér (program) je jednou z foriem ako rozširovať poznávacie procesy študentov prostredníctvom digitálnych technológií resp. prostriedok na podporu učenia a učenia sa v konkrétnych vzdelávacích témach alebo predmetoch. Edukačný softvér ponúka spôsoby ako experimentovať s objektmi, objavovať súvislosti, skúmať a konštruovať naše poznanie. Kvalitný edukačný program by mal reflektovať vekové osobitosti

používateľa, zmysluplne využívať možnosti vizualizácie, spĺňať podmienku interaktivity, podporovať individuálny prístup používateľa k riešeniu problémov, napĺňať stanovený edukačný cieľ a didaktický zámer (validita softvéru), poskytovať otvorenosť vzdelávacieho prostredia. Komparáciou tvrdení vyššie prezentovaných autorov a selekciou podstatných znakov edukačných softvérov a programov uplatniteľných v primárnom vzdelávaní môžeme zovšeobecniť jednotlivé charakteristiky a vyčleniť typy edukačných softvérov a programov, ktoré môžu byť:

- určené na rozvoj gramotnosti a kľúčových kompetencií,
- zamerané na tvorbu edukačných obsahov,
- tvorené multimediálnymi obsahmi,
- určené na výklad, precvičovanie učiva, testovanie a sebahodnotenie študenta,
- realizované programovým učením,
- v podobe tutoriálov,
- využité ako inteligentné vyučovacie systémy,
- vo forme výukových programov,
- v podobe simulácií a modelovaní,
- použité ako digitálna (elektronická) učebnica.

Keďže konkrétne typy edukačných softvérov majú svoje prednosti, špecifiká, ale aj isté ohraničenia, ktoré vyplývajú z ich stanovených edukačných zámerov, môžeme na základe týchto kritérií edukačné softvéry (programy) ďalej klasifikovať podľa:

- vyučovacieho predmetu,
- účelu použitia,
- veku žiaka,
- organizačnej formy,
- náročnosti obsahu,
- spôsobu práce,
- vzdelávacej paradigmy,
- typu autorstva a licencie.

Každá nová technológia vstupujúca do vzdelávacieho procesu môže byť považovaná za potenciálny prostriedok zmeny, či inovácie a povzbudenia žiakov k aktívnemu zapájaniu sa do výučby. V súčasnosti predstavuje digitálny obsah vzdelávania najprogresívnejšiu formu doručenia učebného materiálu, pretože konštruktívne využíva potenciál digitálnych technológií na podporu učenia sa. Formy digitálneho obsahu sú v značnej miere využívané u učiteľov v príprave na vyučovanie, ktorá prebieha podobne, ako na ktorúkoľvek inú hodinu, má však svoje špecifiká. Jej finálna podoba podľa Bobota – Jakubekovej – Ruráka (2012) je závislá na technológiách, ktorými bude prezentovaná a či má učiteľ k dispozícii edukačné a metodické materiály, alebo ich získava z dostupných zdrojov, alebo si ich vytvára sám. V prípade, ak existuje digitálny edukačný obsah vytvorený profesionálmi, je potrebné posúdiť jeho vhodnosť na použitie, zakomponovať ho do jednotlivých fáz vyučovacej hodiny. Ak učiteľ materiál preberá z iných dostupných zdrojov (internet, intranet a pod.), je potrebné posúdiť jeho obsahovú a didaktickú stránku, zvážiť rozsah jeho použitia, prípadne potrebu doplnenia alebo úpravy. Ide síce o časovo náročnú fázu prípravy na vyučovanie, ale návratnosť tejto časovej investície je vysoká – upravený materiál je do budúcnosti možné použiť opakovane. Najnáročnejšou je príprava vlastného edukačného obsahu a to z hľadiska času, zhromažďovania a spracovania informácií a prípravy pútavého obsahu. Zložitým je tiež vlastné spracovanie materiálu, zakomponovanie interaktívnych prvkov, dodržanie didaktických zásad. Vlastný materiál je zvyčajne šitý na mieru, preto ho často vytvárame aj ako doplnok k existujúcim zdrojom. Vo všetkých troch prípadoch je potrebné klásť dôraz na správnu motiváciu, prepojenie teórie a praxe, využitie medzipredmetových vzťahov, aktivizáciu žiaka, podporu tvorivosti a samostatnosti v učení sa žiaka.

Digitálne spracovaný učebný obsah v dnešnej škole má svoje plusy, no na druhej strane je nutné z pohľadu pedagóga vnímať isté obmedzenia, s ktorými treba rátať:

- zostavovať z obsahu vzdelávacieho portálu vyučovaciu hodinu alebo dlhší tematický celok je časovo veľmi náročné,
- zaujímavý digitálny obsah býva často prístupný v cudzom jazyku, teda môžeme naraziť na jazykovú, prípadne kultúrnu bariéru,
- kvalitný digitálny obsah – podobne ako softvér – môže byť veľmi drahý. Na druhej strane, pri používaní voľne prístupného digitálneho obsahu musíme starostlivo posudzovať jeho kvalitu,
- aj kvalitný digitálny obsah sa dá veľmi ľahko používať na nekonštruktívne, frontálne učenie, ktoré zanedbáva dôležité etapy poznávacieho procesu alebo nedodržiava princíp primeranosti, či iné didaktické zásady.

2 Možnosti tvorby edukačného programu

Schellmann (2004) uvádza, že tvorba multimediálneho obsahu sa odvíja v značnej miere od cieľa a úloh, ktoré má takýto program v praxi spĺňať. Spracovanie a štruktúra informácií má smerovať k tomu, aby každý užívateľ optimálne venoval pozornosť obsahu a mohol jeho informácie adekvátnym spôsobom prijímať. Pritom má „utváranie“ informácie a udalosti podľa konkrétnych pravidiel, požiadaviek a podmienok rozčleniť a usporiadať (didaktické princípy) a zobrazovať všetko živšie, než to v skutočnosti je (dramaturgické princípy). Vzhľadom na čoraz kratšie inovačné cykly a stúpajúce požiadavky na kvalitu sú na vzdelávacie programy kladené stále vyššie nároky. Výučbové počítačové systémy, ktoré zaujímajú v oblasti edukácie stále dôležitejšie miesto, musia takisto na vzniknutú situáciu flexibilne odpovedať.

Rôzne obsahy a programy sú tvorené programovacími jazykmi v niekoľkých etapách vývinu, pričom okrem zvládnutia programovacieho jazyka je potrebné najprv stanoviť štruktúru a postup riešenia problému, čo sa nazýva algoritmus. Prepísanie riešenia problému do takéhoto postupu nazýva Ferková (2006) algoritmizovaným postupom riešenia a väčšinou sa zobrazuje vývojovým diagramom, ktorý vizualizuje zložitosť a štruktúrovanosť postupu riešenia problému. Programátor nemusí byť osoba totožná s tvorcom algoritmu a pri dnešnej zložitosti problémov z najrôznejších oblastí sa opakovane stáva, že autorom a tvorcom algoritmu býva odborník či špecialista (často aj pedagóg) z príslušnej oblasti. Vo finálnej fáze potom programátor kooperatívne s tvorcom algoritmu prekóduje algoritmický postup do programovacieho jazyka. V prípade komplikovaného systému a veľkého objemu dát, postupov a riešení problémov sa na tvorbe programu môže podieľať viac odborníkov ako aj programátorov. Používateľ pritom nemusí poznať algoritmus, no v každom prípade je potrebné, aby podľa potreby boli k dispozícii užívateľské príručky, manuály, resp. tutoriály v textovej, obrazovej, zvukovej alebo kombinovanej podobe. Kožuchová (2009) prezentuje tvorbu multimediálnych obsahov s diverzifikáciou jednotlivých fáz, ktoré uvádza nasledovne:

- stanovenie primárneho cieľa, cieľovej skupiny, obsahu programu,
- selekciu potrebných informácií, ktoré sa považujú za vhodné,
- identifikáciu realizačného prostredia, mediálnych elementov, softvérových prostriedkov, podporných prostriedkov,
- prípravu scenára, premyslenie statickej a dynamickej štruktúry programu,
- zostavenie logiky riadiacich elementov,
- zabezpečenie spoľahlivosti produktu.

Multimediálne edukačné obsahy sa presadzujú v najrôznejších oblastiach vzdelávania. Ich finálnu podobu determinuje spolupráca minimálne nositeľa poznatkov, ktoré budú prezentované v programe a programátora. Schreiber a Tanuška (2001) spracúvajú

problematiku vývoja multimediálnych edukačných programov z hľadiska softvérového inžiniera a vymedzujú nasledovné hlavné etapy tvorby multimediálnej výučbovej aplikácie, resp. programu:

- definícia,
- analýza,
- získavanie podkladov,
- príprava médií,
- implementácia,
- testovanie a dokumentovanie,
- replikácia,
- distribúcia.

Definícia predstavuje vymedzenie cieľa a obsahu programu, ktorý sa rozčlení do samostatných celkov. Hlavnú úlohu tu hrá nositeľ obsahovej stránky budúceho programu pripravením pracovných podkladov a požiadaviek. Ďalšou etapou je analýza, kde sa obsah rozčlení na logicky súvisiace menšie celky v podobe úrovní (optimálny počet je 3), do ktorých sa dá zostúpiť kliknutím na kľúčové miesto alebo hypertextový odkaz. Navigácia dozadu na vyššiu úroveň sa rieši zvyčajne prvkom späť alebo smerovou šípkou vľavo. Spôsob navigácie medzi úrovňami (obrazovkami) má vychádzať nielen z obsahu učiva, ale má zodpovedať aj intuícii používateľa a má byť pokiaľ možno jednotný v celom multimediálnom programe. V etape získavania a prípravy podkladov sa na základe vypracovaného scenára začína s vytváraním jednotlivých komponentov (mediálnych elementov) multimediálneho obsahu pomocou špeciálnych softvérov na spracovávanie a digitalizáciu textu, grafiky, zvuku, animácie a videí podľa potreby. Táto etapa je časovo najrozsiahlejšou a pracovne najnáročnejšou, pretože každý mediálny element so svojou špecifickou úlohou v rámci celého systému nadobúda od prvotných nápadov, cez teoretickú úroveň, finálnu digitálnu podobu. Všetky tieto komponenty sa systematicky zhromažďujú do vytvorených knižníc diferencovaných buď podľa jednotlivých úrovní alebo podľa typu multimediálnej informácie. Etapa implementácie obrazne povedané „oživuje“ multimediálny program, kedy programátor začleňuje informácie pripravené z databázy knižníc do výslednej aplikácie, či programu formou programovacích jazykov (nástrojov). Aký programovací nástroj bude nakoniec použitý závisí podľa Schifmana a Heinricha (2000) od použitých platforiem, od požadovanej rýchlosti odozvy (latencie), od toho, či sa bude program aktualizovať, nakoľko budú integrované hypertexty, od použitých formátov a pod. Každý multimediálny edukačný obsah spracovaný do finálnej podoby má typickú štruktúru (architektúru), ktorá má umožniť užívateľovi orientovať sa v systéme informácií. Podľa Vítka (2008) rôzne architektúry multimediálnych programov majú veľa spoločných čŕt, no jestvujú charakteristické rozdiely, ktoré ich predurčujú pre konkrétnu oblasť. Niektoré pracujú dobre na všetkých typoch počítačov, iné sú viazané na určitú hardvérovú a softvérovú platformu, preto neexistuje jednoznačne najlepšia architektúra, ktorá by pokrývala všetky užívateľské potreby. Architektúru (nazývanú aj flowdesign) multimediálnych programov tvoria vo väčšine prípadov tri rôzne prepájacie modely – lineárna, hierarchická (stromová) a sieťová architektúra.

Samozrejme kreovanie multimediálnych edukačných obsahov nie je v súčasnosti výlučnou doménou produkčných tímov alebo riešiteľských kolektívov. Do tvorby vlastných metodických materiálov prostredníctvom digitálnych technológií sa zapájajú aj tvoriví a v technologických procesoch zruční učitelia. Autori Bobot – Jakubeková – Rurák (2012) konkretizujú špecifiká, ktoré je pri tvorbe takýchto materiálov nevyhnutné rešpektovať. Podľa autorov je potrebné zohľadniť, na akej úrovni žiaci ovládajú prácu s počítačom, aké metódy a nástroje spracovania informácií poznajú, nakoľko dokážu kriticky zhodnotiť dostupné zdroje a rešpektovať pravidlá bezpečnej práce s informáciami, softvérom a hardvérom. Využívané

technologické prostriedky by mali zodpovedať učebným štýlom žiakov v rôznych triedach, preto je vhodné postupne rozširovať paletu pripravených materiálov k jednej vyučovacej hodine. Učiteľ pri tvorbe vlastných edukačných materiálov musí zohľadniť (Bobot – Jakubeková – Rurák 2012) cieľ hodiny – máme záujem dosiahnuť merateľnú kvalitu, vyhodnotiť či bol cieľ splnený. Vstupné znalosti žiakov – predošlé znalosti je vhodné zopakovať a nadviazať na ne. Motiváciu – je dôležité vyvolať záujem, aktivizovať žiakov, poukázať na nové – nepoznané. Nové učivo – je vhodné podať ho zaujímavou formou, používať názorné a multimediálne nástroje, aktivizovať žiakov, podporiť ich tvorivosť, vyvolať pocit objaviteľa, zapojiť všetkých, overovať si spätnú väzbu. Upevnenie učiva – dostatok nástrojov na rozvíjanie a upevnenie kompetencií na rôznych úrovniach zvolenej taxonómie cieľov. Dôležité je podporovať samostatnosť, sebakontrolu, individuálny prístup a vytvoriť priestor na komunikáciu so žiakmi a žiakov navzájom. Zhrnutie učiva – dôležité ja na záver sumarizovať poznatky, zastaviť sa pri nejasnostiach, zložitejších javoch alebo dôležitých momentoch. Pripraviť primerané domáce zadanie. Overenie výsledkov – pestré nástroje vhodné na opakované overovanie vedomostí, primerané spôsobu výučby. Ukončenie hodiny – využitie materiálov v ďalšej triede vyžaduje robiť si poznámky o variantoch, problémoch a zaujímavostiach pri využívaní pripravených materiálov. Je prínosom zaznamenať si časové intervaly, súvisiace činnosti, otázky, prípadne výsledky úspešne realizovaných hodín. Podľa potreby je vhodné vytvoriť alternatívnu verziu prípravy.

3 Informatizácia hudobnej edukácie

Podľa Fridmana a kol. (2013) sa názory učiteľov na využívanie digitálnych technológií v hudobnej edukácii pohybujú od nadšeného prijímania ich možností, cez opatrný prístup, ktorý prisudzuje technológiám len okrajové postavenie, až po ich odmietanie. Respondenti poznajú a uznávajú pozitíva technológií, no zväčša uprednostňujú základné hudobné činnosti a tradičný spôsob vyučovania inovovaný modernými didaktickými pomôckami. Fridman ďalej dopĺňa, že názory zahraničných učiteľov a odborníkov sú v porovnaní s našimi učiteľmi odvážnejšie. Forma sprostredkovania učebného obsahu žiakom s využitím digitálnych technológií je podľa Guniša (2009) jedným z inovatívnych prístupov vo vzdelávaní.

Multimediálne prezentovateľný obsah poskytuje učiteľovi primárnej edukácie atraktívny prostriedok pre vzdelávanie žiakov, pre podporu ich vyjadrovania sa spôsobom v škole často netradičným, no blízkym ich každodenným skúsenostiam. Návrh činností a aktivít pre žiakov zahŕňajúcich použitie rôznych mediálnych elementov avšak podmieňuje skúsenosti a zručnosti učiteľa zmysluplne vytvárať a didakticky účinne využívať tieto obsahy v praxi. To podľa nás u učiteľa hudobnej výchovy predpokladá dispozíciu digitálnych kompetencií, ktoré sa prejavia v praktických zručnostiach v práci s rôznymi softvérovými nástrojmi (virtuálne prostredia na zaznamenávanie a úpravu hudby, grafické a textové editory, ako aj videoeditory) pre tvorbu multimediálnych obsahov. Pri tom je potrebné mať na zreteli vhodnosť použitia mediálnych elementov, s čím súvisí aj fakt, čo uprednostniť a čoho sa vyvarovať pri použití konkrétneho typu informácií. Obľuba multimédií a digitálnych technológií (i keď často len konzumná a nie tvorivo-produkčná) u žiakov mladšieho školského veku predurčuje technologické produkty k tomu, aby sa ich potenciálom a využitím v podobe didaktického prostriedku zaoberali aj učitelia vyučujúci hudobnú výchovu. Existujú ešte mnohé „proti“, ale na druhej strane existuje mnoho „za“, čo by nás malo nabádať k posunu vpred v tejto oblasti. Prostredníctvom nových impulzov sa vzdelávanie stáva flexibilným a široko dostupným, samozrejme za predpokladu technickej a užívateľskej pripravenosti žiakov aj pedagógov. Je zrejmé, že učiteľ musí mať znalosti z odboru, v ktorom vyučuje, znalosti z hudobnej pedagogiky a psychológie, nevynímajúc digitálne kompetencie. Podľa Válkovej (2010) sa učiteľ pri implementovaní inovačných trendov, alternatívnych postupov a nových technológií stáva v edukačnom procese radcom, tútorom a

sprostredkovateľom skúseností, poznatkov a zážitkov. Napomáha žiakom v učení a podporuje ich na ceste svojho samoučenia. Odvaha rozvíjať a používať metódy otvoreného a participujúceho učenia by sa preto mali stať podstatnými profesijnými črtami učiteľov tak vo formálnom, ako i neformálnom vzdelávaní. Nenahraditeľné jadro učiteľských kompetencií spočíva v rozvíjaní práve týchto ľudských schopností.

Keďže základnou úlohou školy je príprava žiakov pre život a uplatnenie sa v ňom, je nutné pripravovať žiakov od prvého stupňa až po študentov vysokoškolského štúdia na začlenenie sa do takéhoto prostredia, na aktívny užívateľský prístup k technológiám a technikám práce s informáciami. Pretrvávajúca informačná explózia vo svete s otvoreným a dostupným informačným a komunikačným systémom nabáda k prechodu od poznatkov k poznatkovým štruktúram a metódam vyhľadávania, získavania, vyhodnocovania a spracovávania informácií. V takomto kontexte je možné prezentovať stanovisko autoriek Orbánová – Panulínová (2006), ktoré sú toho názoru, že digitálne technológie ponúkajú nové možnosti, prístupy a novú koncepciu vzdelávania v informačnej spoločnosti. Navyše využívanie digitálnych technológií pri tvorbe vzdelávacích materiálov ponúka multimediálnu dimenziu, ktoré sú aplikovateľné jednak v klasických, dištančných ako aj kombinovaných formách vzdelávania. Macková (2004) uvádza, že pre súčasnú hudobno-pedagogickú prax je príznačné zavádzanie edukačných systémov, ktoré v našich podmienkach súvisia nielen s možnosťou realizovať inú podobu vzdelávania (koncepčnú, obsahovú, metodickú), ale aj prirodzenou snahou hľadať podoby edukačných koncepcií, predpokladajúcich a dosahujúcich účinnejšie pôsobenie v charakteristikách vzťahujúcich sa napr. na vedomosti žiakov, ich školskú úspešnosť, ale aj osobnostný rozvoj, či atmosféru v triede.

Hľadaním prienikov digitálnych technológií a hudobnej výchovy sa zaoberá vo svojej monografii Ferková (2008). Vo vzťahu k hudbe prezentuje názor, že dlho sa považovalo počítačové spracovanie určitého obsahu najmä medzi „hudobnými klasikmi“ za nevhodné, násilné, pretechnologizované a popierajúce podstatu a ľudskosť hudby, jej umeleckú jedinečnosť, neopakovateľnosť, neschopné prezentovať podstatu hudobnej intuície a emocionálneho pôsobenia. Podľa autorky však vývoj ukázal, že aj v širokom priestore hudobného umenia existujú mnohé oblasti, ktoré sa bez spracovania informácií nezaobídu, a pokiaľ bude toto spracovanie neautomatizované a netechnologizované, bude absolútne anachronické.

Na základe vyššie spomínaných tvrdení môžeme dedukovať, že informatizácia rôznych hudobných oblastí sa v posledných rokoch posunula obrovskými krokmi vpred. Preto je aj našim zámerom využiť ponúkané možnosti informatizácie hudby a uplatniť ich priamo v hudobnom vzdelávaní. Na Katedre hudobnej výchovy Pedagogickej fakulty Prešovskej univerzity v Prešove sa snažíme túto devízu „pretaviť“ do praxe primárnej a predprimárnej hudobnej edukácie tvorbou mediálnych elementov, digitálnych hudobných obsahov, multimediálnych edukačných programov. Myslíme si, že aj učiteľ hudobnej výchovy má v dnešnej dobe možnosť (napr.: pomocou virtuálnych nástrojov a voľne dostupných softvérových aplikácií ako aj hadvérových platforiem) priblížiť žiakom hudbu v nespočetných možnostiach a spôsoboch, kde môže využiť svoj hudobno-tvorivý potenciál ako aj svojich tvorivosť žiakov. Tento technologický pokrok umožňuje hudobnému pedagógovi vniesť do hudobného vzdelávania žiakov aktívne prvky, ktoré môžu zvýšiť záujem, aktivitu a motiváciu žiakov takým spôsobom, že pri tom ponechajú žiakom možnosť zážitku, tvorivosti a aktívneho zmocňovania sa hudby cez spevácky, inštrumentálny, pohybový, tanečný, dramatický, ale i výtvarný a literárny prejav žiaka. Uvedenú informatizáciu hudobnej edukácie môže učiteľ spoločne so žiakmi realizovať aj tvorbou vlastných multimediálnych hudobných obsahov s požadovaným tematickým zameraním, resp. didaktickým účelom. Aj týmto spôsobom je teda možné prezentovať čoraz užšie vzťahy medzi hudbou a informatizáciou hudby, ktorá si postupom času nachádza miesto nielen medzi hudobnými

informatikmi, ale aj medzi muzikológmi, hudobnými pedagógmi, hudobnými interprétmi, ako aj medzi samotnými učiteľmi hudobnej výchovy.
K využitiu digitálnych technológií v hudobnej edukácii (v podobe didaktického prostriedku, edukačného programu, inovačnej metódy alebo vzdelávacieho prístupu) považujeme za potrebné uviesť, že digitálne technológie vnímame ako cestu, prostriedok alebo formu, ktorou je možné iným a zaujímavým spôsobom sprístupniť žiakom hudobnú edukáciu, nie ako cieľ hudobného vzdelávania. Z pohľadu učiteľov hudobnej výchovy je preto nevyhnutné, aby sa s kreovaním, získavaním finálnych alebo korekciou už vytvorených a dostupných multimediálnych hudobných obsahov využiteľných priamo v praxi primárnej hudobnej edukácie stretávali už počas prípravy na učiteľskú profesiu a získali tak požadované digitálne kompetencie pri prácu s technológiami.

Použitá literatúra

1. BOBOT, V. – JAKUBEKOVÁ, M. – RURÁK, R. 2012. *Využívanie informačno-komunikačných technológií vo vyučovaní*. Bratislava: Metodicko-pedagogické centrum, 2012. ISBN 978-80-8052-389-3.
2. FERKOVÁ, E. 2006. *Úvod do práce s hudobnými softvérmi*. Bratislava: VŠMU, 2006. ISBN 80-85182-93-9.
3. FERKOVÁ, E. 2008. *Hudobná informatika*. Nitra: FF UKF, 2008. ISBN 978-80-8094-252-6.
4. FRIDMAN, L. a kol. 2013. *Hudobná edukácia v kontexte informačných a komunikačných technológií*. Banská Bystrica: Pedagogická fakulta Univerzity Mateja Bela, 2013. ISBN 978-80-557-0500-2.
5. KOŽUCHOVÁ, M. 2009. Koncept multimediálnej učebnice „Didaktika technickej výchovy“ In *Média a vzdělávání 2009*. Praha: Vysoká škola Hotelová, 2009. ISBN 978-80-86578-94-1.
6. MACKOVÁ, K. 2004. Nondirektivita učiteľa hudobnej výchovy a jej miesto pri vytváraní primeraného sebahodnotenia dieťaťa. In *Teória vyučovania hudobnej výchovy. Hudební teorie a pedagogika. Zborník Katedry hudby*. Banská Bystrica: Univerzita Mateja Bela, Fakulta humanitných vied, 2004. ISBN 80-8055-985-6.
7. ORBÁNOVÁ, I. – PANULÍNOVÁ, E. 2006. *Využitie IKT a moderné pedagogické prístupy vo výučbe*. Košice: Kredit Consulting, s.r.o., 2006. ISBN 80-89294-00-6.
8. SCHELLMANN, B. 2004. *Médiá – základní pojmy, návrhy, výroba*. Praha: Europa-Sobotáles, 2004. ISBN 80-86706-06-0.
9. SCHIFMAN, R.S. – HEINRICH, G. 2000. *Multimediaprojektmanagement. Von der Idee zum Produkt*. Berlin: Springer Verlag, 2000. ISBN 3-540-67120-X.
10. SCHREIBER, P. – TANUŠKA, P. 2001. Poznámky k vývoju multimediálnych výučbových programov z hľadiska softvérového inžiniera. In *Multimédiá v pedagogickom vzdelávaní. 4. Medzinárodná vedecká konferencia KIPP. SCHOLA 2001*. Trnava: Vydavateľstvo Slovenskej technickej univerzity, 2001. ISBN: 80-227-1610-3.
11. VÁLKOVÁ, S. (2010). Interaktívny projekt vo vyučovaní hudobnej výchovy. In *Hudobná edukácia a vzdelávacie programy – medzinárodná vedecká WEB konferencia*. Banská Bystrica: PF UMB, 2010. ISBN 978-80-557-0021-2.
12. ZOUNEK, J. 2006. *ICT v životě základních škol*. Praha: TRITON, 2006. 1.vyd. ISBN 80-7254-858-1.

Kontaktné údaje
Mgr. Martin DZURILLA, PhD
Pedagogická fakulta PU v Prešove
17. novembra č. 15, 08001 Prešov
Slovensko
email: martin.dzurilla@unipo.sk

Mgr. Vladimír FEDORKO, PhD.
Pedagogická fakulta PU v Prešove
17. novembra č. 15, 08001 Prešov
Slovensko
email: vladimir.fedorko@unipo.sk

PRVKY PROSOCIÁLNEHO SPRÁVANIA SA DETÍ A DOSPELÝCH PRI RIEŠENÍ KONFLIKTNÝCH SITUÁCIÍ

ELEMENTS OF PROSOCIAL BEHAVIOR OF CHILDREN AND ADULTS IN SOLVING OF CONFLICT SITUATIONS

Štefánia Ferková

Abstrakt

Príspevok je zameraný na prezentovanie parciálnych výsledkov aplikovaného výskumu, ktorého cieľom bolo zistiť morálne usudzovanie detí a dospelých, kde jedným zo špecifických výsledkov bol aj výskyt prvkov prosociality pri riešení konfliktných situácií. V ďalšej časti príspevku prezentujeme vybranú techniku z metodickej príručky s názvom Morálne kompetencie žiakov - Metodická príručka pre učiteľov na nižšom sekundárnom stupni vzdelávania. Technika je zameraná aj na rozvoj prosociálneho správania sa detí.

Kľúčové slová: *prosociálne správanie sa, deti, dospelí, konfliktné situácie, výskum, metodická príručka*

Abstract

The paper is aimed at presenting the partial results of applied research aimed at identifying the moral reasoning of children and adults, where one of the specific results was also appearance of elements of prosocial behavior in solving of conflicts situations. In the next part of the paper, we present selected technique from the methodical manual: Moral Competences of Pupils - Methodical Guide for Teachers in Lower Secondary Education. Technique is also aimed at developing of prosocial behavior of children.

Key Words: *prosocial behavior, children, adults, conflict situations, research, methodical guide*

1 Úvod

V každodennom živote sa stretávame s egoistickým správaním sa ľudí, neznámych na ulici, v obchodoch, iných inštitúciách, ale čo vnímame omnoho citlivejšie aj zo strany kolegov, blízkych, priateľov a nanešťastie aj niekedy zo strany členov rodiny. Príspevok je zameraný na stručný teoretický vstup týkajúci sa prosociálneho správania sa ľudí, na parciálne výsledky aplikovaného výskumu a zároveň na prezentáciu vybranej techniky zameranej na rozvoj prosociálneho správania sa detí v staršom školskom veku.

Prosociálne správanie sa zvykne niekedy uvádzať, že vzniklo najprv ako antonymum slovného spojenia antisociálne správanie. Podľa Lapsley (1996, s. 149 in Vacek, 2013, s. 99) je prosociálne správanie tradične definované ako „dobrovoľné správanie zamerané na prospech druhému." Wispé (1972 in Výrost, Slaměník, 1997) uvádza, že prosociálne správanie sa má rozmanité formy:

- darovanie (finančné čiastky alebo dary – najčastejšie určené na dobročinné účely)
- sympatia a porozumenie (pre náročnú situáciu iného)
- pomoc pri dosahovaní určitého cieľa
- ponuka k spolupráci (vyjadrujúca ochotu spolupracovať s inými v prospech tých, ktorí to potrebujú)
- podpora (poskytovaná k dosiahnutiu nejakého cieľa alebo zabránenie straty).

Existuje skupina autorov, ktorí rozlišujú ďalšiu formu prosociálneho správania, t. j. altruizmus. Niektorí autori obidva termíny používajú synonymicky. Za altruistické správanie by sme mohli označiť také, ktoré nepočíta so žiadnym ziskom, odmenou z pomoci druhému, dokonca aj na úkor seba samého. Existujú rôzne pohľady na to, prečo sa ľudia správajú prosociálne. Jednou z teórií býva, že je to preto, lebo už malým deťom prostredníctvom výchovy vštepujeme isté hodnoty, povzbudzujeme ich k tomu, aby sa podelili o hračku, aby pomáhali iným. Iní autori tvrdia, že sa niektorí ľudia správajú prosociálne preto, lebo to majú v sebe prirodzene zakorenené. Ďalšie teórie hovoria o prosociálnom správaní sa ľudí k tým, ku ktorým majú prirodzene bližší vzťah. Za niektoré faktory prosociálneho správania sa bývajú označované aj egoistické pohnútky, ako je pomoc iným za účelom zlepšenia vlastného seba-obrazu (tzv. self –image), niekedy ide o vzájomné výhody (pomôžem druhému preto, lebo mi to raz určite vráti), inde sa stretávame s názorom vychádzajúceho z tlaku sociálnych noriem alebo niekedy býva zdrojom prosociálneho správania sa empatia.
V súvislosti s prosociálnym správaním sa stretávame aj s pojmom efekt prihliadajúcich („bystander effect“), ktorý hovorí o tom, že čím je väčší počet osôb, ktoré sledujú udalosť vyžadujúcu pomoc niekomu v núdzi, tým nižšia je pravdepodobnosť, že pomoc bude naozaj poskytnutá“ (Helus, 2011, s.247). Autor ďalej v tejto súvislosti opisuje aj efekt rozptýlenej zodpovednosti, t. j., že pri účasti väčšieho počtu osôb jeden spolieha na druhých, že pomoc poskytnú. Vstupuje do hry aj úvaha, že medzi účastníkmi je možno odborník alebo skúsený jednotlivec, ktorý pomôže lepšie ako ja (tamtiež, s.247).
Vacek (2008. s.78) uvádza, že výskyt prosociálneho správania je výrazným signálom správne orientovaného morálneho rozvoja. Také správanie má podobu súcitenia, spoluúčasti, solidarity až po aktívnu pomoc. Podpora a rozvoj prosociálnych prejavov žiakov by mala byť základnou snahou každého pedagóga. Už v predškolskom veku je dôležité učiť deti súcitiť pri bolesti, smútku, ale predovšetkým vcítiť sa do radosti kamaráta a prežiť ju ako vlastnú radosť. Súhlasíme s vyjadrením autora, a aj preto sme sa rozhodli v našom vedeckom projekte skúmať spôsoby morálneho uvažovania detí a dospelých a následne sme vytvorili metodickú príručku zameranú na rozvoj morálnych kompetencií žiakov staršieho školského veku, ako to opisujeme v nasledujúcej časti príspevku.

1.1 Aplikovaný výskum (výskumná metóda)

Ako sme už vyššie opísali, príspevok je zameraný na prezentáciu parciálnych výsledkov aplikovaného výskumu, ktorý je jedným z výstupov projektu KEGA 026UK-4/2015 *„Morálne postoje detí a dospelých v rodine a škole: aplikovaný výskum a metodický materiál pre učiteľov, výchovných poradcov a koordinátorov prevencie“.* Cieľom projektu bolo zrealizovať aplikovaný výskum zameraný na zisťovanie morálnych postojov u detí a dospelých a vytvoriť metodickú príručku pre učiteľov, výchovných poradcov a koordinátorov prevencie. V prvom roku riešenia projektu sme sa zameriavali na štúdium odbornej literatúry, so zámerom nájsť aj vhodný výskumný nástroj na zisťovanie morálnych postojov respondentov, čo nebolo ľahké, pretože v súčasnej dobe existujú výskumné nástroje zamerané na zisťovanie predovšetkým morálneho usudzovania. Výskumné nástroje, ktoré sú zamerané na skúmanie morálnych kompetencií, t. j jednotlivcova spôsobilosť dospievať na základe svojich vnútorných zásad k morálnym úsudkom a spôsobilosť konať v súlade s týmito úsudkami (Slováčková, 2001, s. 76), sú založené predovšetkým na riešení morálnych dilem, čo je podľa mnohých autorov náročné na pochopenie pre deti v staršom školskom veku. Spomínanými nástrojmi sú napr. MJI (Moral Judgement Interview, L. Kohlberg), MCT (Moral Competence Test, G. Lind), DIT (Defining Issue Test, J. Rest) a ďalší. Náročné je v súčasných podmienkach nájsť aj vhodný výskumný nástroj, ktorý by bol zameraný na všetky tri zložky morálnych postojov a to hlavne na jeho afektívnu zložku. Z vyššie opísaných dôvodov sme sa v druhom roku riešenia projektu zamerali na zisťovanie predovšetkým

kognitívnej zložky morálnych postojov, t. j. na morálne usudzovanie, kde sme modifikovali pôvodný československý štandardizovaný výskumný nástroj Test morálni zralosti osobnosti (TMZO), od autorov J. Kotásková a I. Vajda (1983). Na rozdiel od pôvodnej verzie, ktorá je určená mladším deťom, sme vytvorili verziu pre deti staršieho školského veku a pre dospelých, s názvom Test morálneho usudzovania (TMU), J. Prevendárová a Š. Ferková, 2016. Navrhnutá metodika bola overená v predvýskume, so zachovanou pôvodnou štruktúrou jedenástich mikropríbehov, zvlášť pre chlapcov a pre dievčatá. Bola vytvorená aj verzia pre dospelých, ktorá bola predložená učiteľom na nižšom sekundárnom stupni vzdelávania a rodičom školopovinných detí. Príbehy boli zamerané, ako v pôvodnom teste, na agresiu voči osobe, agresiu voči veci, podvod resp. lož a na krádež. Mená účastníkov príbehu boli zmenené, situácie a veci boli prispôsobené na súčasné podmienky. Tieto kratučké príbehy sa týkali bežných konfliktných situácií, ktoré mali žiaci riešiť jednak z pozície priameho účastníka konfliktu, ako aj z pozície pozorovateľa. Rovnaké príbehy boli predložené učiteľom i rodičom s požiadavkou, aby sa vyjadrili, ako by podľa nich mali konať v danej situácii ich žiaci, deti.

Ukážka príbehu:
Ukážka príbehu z Testu morálneho usudzovania (verzia pre dievčatá)

Príbeh 3
Na hodine výtvarnej výchovy sa Paulíne vydarila jedna kresba. Zuzana, ktorá sedela vedľa nej v lavici, nevedela tak pekne kresliť a nepáčilo sa jej, že Paulína má krajší obrázok ako ona. Nazlostila sa, zobrala čiernu fixku a Paulíne celý výkres počmárala. Paulína vzápätí zobrala Zuzanin výkres a urobila na ňom čiernou farbou niekoľko machúľ.

Otázky pre žiakov: 1. Bolo to spravodlivé riešenie? (možnosť odpovedí: áno, nie, neviem). 2. Čo by si urobila ty, keby si bola na Paulíninom mieste? 3. Čo by si urobila ty, keby sa také niečo stalo u vás v triede medzi tvojimi spolužiačkami a ty by si o tom vedela ?
Otázky pre učiteľov: 1. Ako by podľa vás mala zareagovať vaša žiačka, keby bola na Paulíninom mieste? 2. Ako by mali podľa vás zareagovať ostatní spolužiaci, ktorí by boli svedkom incidentu v triede?
Otázky pre rodičov: 1. Ako by malo podľa vás zareagovať vaše dieťa, keby bolo na Paulíninom mieste? 2. Ako by malo podľa vás zareagovať vaše dieťa, keby bolo svedkom incidentu v triede?

1.2 Výskumná vzorka

Na základe výsledkov predvýskumu bol výskumný nástroj následne upravený a použitý vo výskume na vzorke respondentov n=408 (žiaci, učitelia, rodičia) z miest Bratislava, Šamorín, Nitra, Banská Bystrica. Respondentmi výskumu boli žiaci vo veku 10 – 13 rokov (n=283), z toho chlapcov (n=155) a dievčat (n=128), vzorku tvorili aj učitelia (n=84) a rodičia (n=41). (Pozn. nižší počet zo súboru rodičov vznikol na základe odmietnutia ich participácie vo výskume).

1.3 Výsledky výskumu a ich interpretácia

Výpovede žiakov, učiteľov a rodičov sme analyzovali a zoradili pomocou otvoreného kódovania do 9 subkategórií, ktoré sme nazvali: REC – recipročné správanie, VERB-AG – verbalizácia s prvkami agresie, REC-AG - reciprocita s prvkami agresie, VERB-VYS – verbálne vysvetlenie, KON – konštruktívne riešenie, KON-P – konštruktívne riešenie s prvkami pomoci, ODV – odvolávanie sa na autoritu, VYH – vyhnutie sa konfliktu, neangažovanie sa, NEV – neviem posúdiť. Vytvorené pojmy sme ďalej pomocou techniky konštantnej komparácie zoskupili do 3 hlavných kategórií, na základe príslušnosti

k rovnakému javu. Tieto kategórie sme nazvali: *Deštruktívne riešenia* (subkategórie: REC, VERB-AG, REC-AG), *konštruktívne riešenia* (subkategórie: VERB-VYS, KON, KON-P) *a pasívne riešenia* (subkategórie: ODV, VYH, NEV). Na štatistické spracovanie údajov sme použili program WinStat. Okrem deskriptívnej štatistiky, kde sme pracovali s početnosťami, sme na overovanie hypotéz použili F-Test, T-Test a Chí-kvadrát.

V nasledujúcej časti príspevku uvádzame výsledky vo vzťahu k trom hlavným výskumným hypotézam rozčlenené podľa troch skupín respondentov (žiakov, učiteľov a rodičov).

Hypotéza 1: *Žiaci budú signifikantne najčastejšie navrhovať pasívne riešenia konfliktov.*

Na základe výsledkov testovania môžeme konštatovať, že sa nám hypotéza potvrdila. Štatisticky významne sa u žiakov najčastejšie objavovali pasívne riešenia konfliktov (n=1735; f=46,9%) ako sme predpokladali, potom nasledovali konštruktívne (n=1235; f=33,4%) a deštruktívne boli s najnižším výskytom (n=727; f=19,7%). Môžeme konštatovať, že medzi jednotlivými kategóriami je štatisticky významný rozdiel a teda štatisticky významne najčastejšie sa vyskytovali pasívne riešenia konfliktov, potom konštruktívne riešenia a najmenej často boli zastúpené deštruktívne riešenia konfliktov. Všetky rozdiely boli štatistický významné – signifikantné.

Vo vzťahu k názvu príspevku prezentujeme hlavne parciálne výsledky výskumu, zamerané na výskyt prvkov prosociálneho správania sa detí a dospelých, preto v nasledujúcej tabuľke č. 1 uvádzame výsledky u žiakov v jednotlivých subkategóriách.

Tab. 1 Početnosť výpovedí žiakov v jednotlivých subkategóriách

subkategória	n	AM	σ
ODV	816	6,063	51,491
VYH	714	5,642	45,127
NEV	205	1,640	13,046
VERB-VYS	387	3,142	24,654
KON	316	2,522	19,954
KON-P	532	4,232	33,684
VERB-AG	148	1,161	9,353
REC	294	2,243	18,733
REC-AG	285	2,191	18,185
∑	3697		

Legenda:

ODV	odvolávanie sa na autoritu	REC	reciprocita
VERB-VYS	verbálne vysvetlenie	REC-AG	reciprocita s prvkami agresie
VERB-AG	verbalizovanie s prvkami agresie	VYH	vyhnutie sa, neriešenie
KON	efektívne konštruktívne riešenie	NEV	neviem posúdiť
KON-P	efektívne konštruktívne riešenie s prvkami pomoci	n	početnosť

Z vyššie uvedených výsledkov vyplýva, že žiaci by v konfliktnej situácii, či už z pozície priameho účastníka konfliktu alebo pozorovateľa, najčastejšie volili možnosť ODV-odvolávanie sa na autoritu (n=816). Uvedené nemôžeme považovať za pozitívne zistenie, pretože výsledky naznačujú neschopnosť riešiť konfliktné situácie u detí staršieho školského veku bez pomoci autority, dospelého, v našom prípade učiteľa alebo rodiča. Vo vzťahu k prosociálnemu správaniu sa detí nás zaujíma kategória KON-P, t.j. konštruktívne riešenie s prvkami pomoci, n=532. Výsledok naznačuje, že žiaci vedeli v niektorých situáciách nájsť vhodné riešenie konfliktu, pri ktorom sa zároveň objavoval aj prvok pomoc, čo môžeme považovať jednoznačne za pozitívne zistenie. Z konkrétnych výpovedí žiakov uvádzame napr: *„Zastal by som sa ho.“, „Pomohol by som mu s nakreslením nového výkresu“., „Postavil by som sa na stranu slabšieho.“, „Dal by som mu svoju desiatu.“* a pod. Vo vzťahu ku

komplexným výsledkom u žiakov je na škodu, že žiaci najvýraznejšie však volia možnosť pasívnych riešení konfliktov, odvolávajú sa autoritu alebo sa priamo konfliktu vyhnú (častejšie v prípade pozorovateľov konfliktnej situácie). Pritom výsledky jasne naznačujú, že deti v staršom školskom veku sú schopné nájsť aj konštruktívne riešenie konfliktu, ba dokonca pomôcť spolužiakovi, ktorý pomoc práve potrebuje. Je otázne, či v súčasnej praxi nevedú učitelia žiakov k tomu, aby vzniknutý problém ihneď nahlásili učiteľovi a on to za nich vyrieši. Obdobne u rodičov, ktorí chcú ochranársky prevziať kontrolu nad všetkým, čo ich dieťa zažíva, čím jednoznačne môžu dospelí ,,brzdiť" rozvoj samostatnosti detí a prevzatie zodpovednosti za svoje správanie, učiť sa efektívne riešiť konflikty a pod.

Hypotéza 2: *Učitelia budú signifikantne najčastejšie navrhovať konštruktívne riešenia konfliktov.*

Na základe výsledkov testovania môžeme konštatovať, že sa nám hypotéza potvrdila. Štatisticky významne sa najčastejšie objavovali konštruktívne riešenia konfliktov (n=639; f=51,24%), potom nasledovali pasívne riešenia (n=505; f=40,5%) a posledné boli deštruktívne (n=103; f=8,26%).

Tab. 2 Početnosť výpovedí učiteľov v jednotlivých subkategóriách

subkategória	n	f	kn	kf
ODV	426	34,16	426	34,16
VYH	68	5,45	494	39,62
NEV	11	0,88	505	40,50
VERB-AG	24	1,92	529	42,42
REC	67	5,37	596	47,79
REC-AG	12	0,96	608	48,76
VERB-VYS	239	19,17	847	67,92
KON	207	16,60	1054	84,52
KON-P	193	15,48	1247	100,00
∑	1247	100,00		

Legenda:

ODV	odvolávanie sa na autoritu	REC	reciprocita
VERB-VYS	verbálne vysvetlenie	REC-AG	reciprocita s prvkami agresie
VERB-AG	verbalizovanie s prvkami agresie	VYH	vyhnutie sa, neriešenie
KON	efektívne konštruktívne riešenie	NEV	neviem posúdiť
KON-P	efektívne konštruktívne riešenie s prvkami pomoci	n	početnosť
f	relatívna početnosť	kn	kumulatívna absolútna početn.
kf	kumulatívna relatívna početnosť		

Na základe profesie – učiteľa sme predpokladali, že učitelia budú voliť najčastejšie možnosť - z pohľadu troch hlavných kategórií, konštruktívneho riešenia konfliktov, čo sa nám aj potvrdilo. Z čiastočných výsledkov v jednotlivých subkategóriách u učiteľov však jednoznačne vyplýva, že najčastejšie volili možnosť odvolávania sa na autoritu (ODV, n=426). Uvedené zistenie nemožno považovať za pozitívne, pretože tak, ako sme už vyššie opisovali, učitelia od žiakov očakávajú, aby im vzniknutý problém nahlásili. Výsledky u žiakov a u učiteľov sú kompatibilné, to čo učitelia od žiakov očakávajú, žiaci aj pravdepodobne robia, ihneď nahlásia, čo sa stalo. Parciálny výsledok vo vzťahu k prosociálnemu správaniu sa nie je tiež pozitívny, vzhľadom na nízky výskyt v subkategórii KON-P, konštruktívne riešenie s prvkami pomoci (n=193). Znamená to, že učitelia síce navrhli pri niektorých situáciách riešenie, kde mal niekto zo žiakov ponúknuť pomoc inému spolužiakov, ktorý to momentálne potrebuje, častejšie však navrhovali možnosť nahlásenia problému im samotným. Výsledky tak môžu naznačovať ,,slabšie" vedenie učiteľov k rozvoju

prosociálneho správania sa žiakov, čím sa jednoznačne vytvára priestor pre začleňovanie techník rozvíjajúcich prosocialitu žiakov, aj formou metodických príručiek pre učiteľov (viac nižšie v časti Metodická príručka).

Hypotéza 3: *Rodičia budú signifikantne najčastejšie navrhovať pasívne riešenia konfliktov.*

Predpokladali sme, že rodičia budú najčastejšie navrhovať pasívne riešenia konfliktov, ale na základe výsledkov testovania môžeme konštatovať, že sa nám hypotéza nepotvrdila. Štatisticky významne sa najčastejšie objavovali konštruktívne riešenia konfliktov (n=399; f=58,85%), potom nasledovali pasívne (n=228; f=33,63%) a posledné boli deštruktívne (n=51; f=7,52%).

Tab. 3 Početnosť výpovedí rodičov v jednotlivých subkategóriách

subkategória	n	f	kn	kf
ODV	170	25,07	170	25,07
VYH	44	6,49	214	31,56
NEV	14	2,06	228	33,63
VERB-AG	6	0,88	234	34,51
REC	38	5,60	272	40,12
REC-AG	7	1,03	279	41,15
VERB-VYS	167	24,63	446	65,78
KON	113	16,67	559	82,45
KON-P	119	17,55	678	100
∑	678	100,00		

Legenda:

ODV	odvolávanie sa na autoritu	REC	reciprocita
VERB-VYS	verbálne vysvetlenie	REC-AG	reciprocita s prvkami agresie
VERB-AG	verbalizovanie s prvkami agresie	VYH	vyhnutie sa, neriešenie
KON	efektívne konštruktívne riešenie	NEV	neviem posúdiť
KON-P	efektívne konštruktívne riešenie s prvkami pomoci	n	početnosť
f	relatívna početnosť	kn	kumulatívna absolútna početn.
kf	kumulatívna relatívna početnosť		

Z výsledkov u rodičov v jednotlivých subkategóriách vyplýva, že by najčastejšie volili možnosť odvolávania sa na autoritu (ODV, n=170). Druhou najčastejšou možnosťou, ktorú rodičia volili bola možnosť verbálneho vysvetlenia (VERB-VYS, n=167) a treťou najčastejšou možnosťou je konštruktívne riešenie s prvkami pomoci (KON-P, n=119). Výsledky u rodičov možno celkovo označiť za pozitívne, pretože sme predpokladali, že budú skôr voliť možnosť pasívneho riešenia konfliktov, čo sa nám nepotvrdilo. Pomerne často volili možnosť konštruktívneho riešenia konfliktov s prvkami pomoci, čo je vo vzťahu k rozvoju prosociálneho správania u detí pozitívnym zistením. Musíme však podotknúť, že sa jedná o malú skupinu respondentov (n=41), preto nemôžeme výsledky zovšeobecniť, bolo by ich potrebné overiť na väčšom počte respondentov a v zastúpení viacerých slovenských regiónov. Pokiaľ by sa zistenia potvrdili, je tu potenciál na zefektívnenie spolupráce rodičov so školou.

1.4 Metodická príručka

Výsledky výskumu poslúžili ako podklad pre vytvorenie hlavného výstupu projektu, t. j. metodickej príručky pre učiteľov na nižšom sekundárnom stupni vzdelávania (Ferková, Š. ed. 2017. *Morálne kompetencie žiakov. Metodická príručka pre učiteľov na nižšom sekundárnom stupni vzdelávania.* Bratislava : Univerzita Komenského v Bratislave. 212 s. ISBN 978-80-223-4432-6). Cieľom metodickej príručky je rozvíjať morálne kompetencie žiakov na nižšom

sekundárnom stupni vzdelávania vo veku 10 – 15 rokov, aby dokázali morálne usudzovať, ale na základe toho aj konať. Zámerom členov riešiteľského kolektívu je posilňovať individuálne hodnoty žiakov, ale aj hodnoty skupiny zamerané na rôzne formy spolupráce, spolupatričnosti, priateľstva, vyjadrovania súcitu, porozumenia a pod. Zámerom je aj ujasňovanie motívov konania, ale ide tu aj o snahu o autoreguláciu vlastného správania a pod. Hlavná časť metodickej príručky pozostáva z navrhnutých aktivít (techník), zameraných na rozvíjanie morálnych kompetencií žiakov, ktoré sú rozdelené do 6-tich kategórií: *sebareflexia, sebaovládanie, zodpovednosť, čestnosť, spolupráca a pomoc druhým, priateľstvo.* Každá kategória obsahuje minimálne 10 aktivít, celkovo ich je v celej príručke 65. Pri ich tvorbe členovia riešiteľského kolektívu vychádzali z výsledkov výskumu, z vlastných nápadov, z vlastnej učiteľskej, či psychologickej praxe, pri niektorých sa nechali inšpirovať našimi, ale aj zahraničnými autormi. Navrhnutá metodika bola následne predložená recenzentom na pripomienkovanie a taktiež bola odprezentovaná učiteľom a iným nepedagogickým zamestnancom na odbornom seminári za účelom zapracovania ich postrehov, návrhov. Autori jednotlivé pripomienky zapracovali do finálnej verzie metodickej príručky.

Pre ilustráciu uvádzame príklad aktivity, ktorú by bolo možné využiť na rozvoj prosociálneho správania sa žiakov. Súčasťou prosociálneho správania sa býva aj prejavenie súcitu voči inému človeku, preto ako príklad uvádzame aktivitu s názvom *„Prejavenie súcitu.“* (aktivita je z kategórie s názvom *Priateľstvo*). Cieľom aktivity je učiť sa a zdokonaliť sa vo verbálnom prejavovaní súcitu. Zároveň učiť sa schopnosti poskytnúť kamarátovi podporu v ťažkých životných situáciach. Odporúčaný vek účastníkov je od 10 do 15 rokov, približné časové trvanie aktivity je 30 minút. Aktivita obsahuje pracovný list s názvom *Prejavenie súcitu,* na realizáciu aktivity sú potrebné aj písacie potreby pre žiakov, pre učiteľa počítač a dataprojektor (prípadne, ak učebňa nie je vybavená technikou postačujúca je aj klasická tabuľa a krieda). Žiaci pracujú v skupinách. Uvádzame podrobnú inštrukciu: Žiakov rozdelíme do skupín, v ktorých vypracujú vlastné návrhy viet vyjadrujúcich súcit a podporu dobrému kamarátovi na základe predložených krátkych príbehov. Žiaci pracujú v skupine podľa potreby (pribl. 10 – 15 min.), učiteľ môže v priebehu aktivity inštrukciu zopakovať. Pracovný list obsahuje 4 príbehy: napr. príbeh č. 1: *Petra a Barbora sú spolužiačky a veľmi dobré kamarátky. Petra sa poctivo pripravovala na test z matematiky, ale aj tak test nenapísala podľa svojich predstáv. Učiteľka ho klasifikovala známkou 4. Petra je po vyučovacej hodina veľmi smutná.* Nasleduje otázka: *Čo by mala Barbora ako Petrina dobrá kamarátka povedať?* Žiaci pracujú v skupinách a píšu svoje návrhy najprv do pracovných listov.

Diskusiu môže učiteľ viesť tak, že po skončení práce skupín, si každá zvolí jedného hovorcu, ktorý bude postupne hovoriť návrhy skupiny alebo každý hovorca z každej skupiny vždy v jednom kole povie iba jeden návrh, hovorcovia skupín sa vždy striedajú. Učiteľ zapisuje návrhy žiakov do pripraveného pracovného listu prostredníctvom PC a dataprojektora (prípadne zapisuje návrhy žiakov na tabuľu). Navrhujeme diskutovať o každom návrhu žiakov zvlášť, opýtať sa ostatných skupín, či aj v ich návrhoch sa vyskytla spomenutá veta, nechať žiakov vyjadriť svoj súhlas, prípadne nesúhlas s návrhom skupiny a pod. Na záver učiteľ zhrnie dôležitosť správneho prejavenia súcitu a poskytnutia podpory v priateľskom vzťahu.

2 Záver

Výsledky aplikovaného výskumu poukazujú na výraznú pasivitu detí i dospelých: buď nezáujem angažovať sa v morálne vypätých situáciách, alebo tendenciu odvolávať sa na vyššiu autoritu v domnienke, že niekto iný situáciu za nich vyrieši. Je preto nevyhnutné, aby dospelí, najmä učitelia a rodičia vo väčšej miere podporovali morálne postoje detí a rozvíjali ich morálne kompetencie. Aby namiesto doterajšieho sústredenia sa na individualitu,

sebapresadenie a súťaživosť, začali u detí viac podporovať ich zmysel pre spolupatričnosť, spoluprácu, čestnosť, spravodlivosť či zodpovednosť tak, aby bolo pre nich prirodzené zastať sa slabších a znevýhodnených. Ako z čiastočných výsledkov výskumu vyplýva, deti staršieho školského veku sú schopné navrhnúť vhodné konštruktívne riešenia konfliktov s prvkami pomoci, čo má výrazný potenciál v ďalšom rozvoji prosociálneho správania sa detí. Výsledky ukázali aj vyšší výskyt konštruktívnych riešení s prvkami pomoci u rodičov, čo by bolo potrebné využiť na zefektívnenie ich spolupráce so školou. Je dôležité, aby sa dospelí, či už učitelia alebo rodičia, učili dôverovať deťom a snažili sa ich viesť k prebratiu zodpovednosti za svoje správanie s vedomím, že sú vedené k tomu, aby zvládali riešiť vzniknuté konfliktné situácie konštruktívnym spôsobom. Zároveň, aby bolo pre nich prirodzené pomôcť niekomu, kto je v núdzi, kto pomoc práve potrebuje. Jedným z najväčších zmyslov práce dospelých je investícia do rozvoja morálneho usudzovania a morálneho konania detí, a aj rozvoja ich prosociálneho správania, pretože je to investícia do našej budúcnosti, „deti sú naša budúcnosť“.

Príspevok je súčasťou riešenia projektu KEGA-026UK-4/2015.

Použitá literatúra

1. FERKOVÁ, Š. ed. *Morálne kompetencie žiakov. Metodická príručka pre učiteľov na nižšom sekundárnom stupni vzdelávania.* Bratislava : Univerzita Komenského v Bratislave. 2017. 212 s. ISBN 978-80-223-4432-6).
2. HELUS, Z. *Úvod do psychologie.* Praha : Grada. 2011. 317 s. ISBN 978-80-247-3037-0
3. KOTÁSKOVÁ, J., VAJDA, I. *Test morální zralosti osobnosti.* Bratislava : Psychodiagnostické a didaktické testy. 1983. 56 s.
4. PREVENDÁROVÁ, J., FERKOVÁ, Š. Modifikácia testu morálnej zrelosti osobnosti ako východisko pre skúmanie morálnych postojov detí a dospelých v rodine a škole. In *Rodina, tolerancia inakosti a kvalita života detí a mládeže*, Zborník príspevkov z konferencie. Bratislava : PdF UK. 2017.
5. SLOVÁČKOVÁ, B. Morální kompetence a morální postoje u studentů lékařské fakulty Univerzity Karlovy v Hradci Králové. In *Psychiatrie*, 2001. 5, č. 2, s. 74-79.
6. VACEK, P. *Rozvoj morálního vědomí žáků*. Praha : Portál. 2008. 126s. ISBN 978-80-7367-386-4
7. VACEK, P. *Psychologie morálky a výchova charakteru žáků.* Hradec Králové : Gaudeamus. 2013. 258 s. ISBN 978-80-7435-257-7
8. VÝROST, J. SLAMĚNÍK, I. *Sociální psychologie.* Praha : Grada. 1997. 453 s. ISBN 80-85866-20-X

Kontaktné údaje

Mgr. Štefánia Ferková, PhD.
Pedagogická fakulta Univerzity Komenského, Ústav pedagogických vied a štúdií
Katedra pedagogiky a sociálnej pedagogiky
Račianska 59, 813 34 Bratislava
+421 910/163 981
email: ferkova@fedu.uniba.sk

ŠPECIFICKÁ ORTOGRAFIA V DIELACH POMOCNÍK A KNIHA O CINTORÍNE

SPECIFIC ORTHOGRAPHY IN THE WORKS HELP AND BOOK ABOUT THE CEMETERY

Hana Guzmická

Abstrakt

Spoločným menovateľom obidvoch diel je ich špecifická ortografia. Autor knihy Pomocník Ladislav Ballek i autorka Knihy o cintoríne Daniela Kapitáňová situovali dej svojich diel do slovensko-maďarského pohraničia, čo sa prejavuje výskytom hungarizmov ako lexikálnych prvkov či hungarík ako prvkov predstavujúcich maďarské reálie.

Kľúčové slová: *Pomocník, Kniha o cintoríne, hungarizmy*

Abstract

The common denominator of both works is their specific orthography. The author of the book Help Ladislav Ballek and the author of the Book about the cemetery Daniela Kapitáňová have placed their stories in the region near Slovak-Hungarian border, which is manifested by the occurrence of hungarisms as lexical elements or hungary as elements representing the Hungarian realms.

Key words: *Help, Book about the cemetery, hungarisms*

1 BALLEKOV POMOCNÍK

Z lingvistického hľadiska je tento román, patriaci to tzv. Južanskej trilógie, veľmi zaujímavý. V Pomocníkovi sa miešajú dva jazyky: slovenský a maďarský. Slovenský a maďarský jazyk sú typologicky aj genealogicky úplne odlišné. Kým maďarčina je genealogicky ugrofínsky a typologicky aglutinačný jazyk, slovenčina je genealogicky indoeurópsky (západoslovanský) a typologicky flektívny jazyk (Alabánová – Glovňa, 2015, s. 128-129). V románe je jazykovo zobrazený fragment slovenskej jazykovej situácie, ktorej útvary sú v špecifickom vzájomnom geografickom i funkčnom vzťahu a tvoria mikroštruktúru zobrazujúcu v redukovanej a transformovanej podobe aktuálne jazykové pomery v istom časovom období, dva roky po druhej svetovej vojne (Čejka, 1987, s. 49-52). Román bol vydaný v období, kedy literárna tvorba mala „znaky úspešného generačného pokusu tematicky rozšíriť ohľad prózy na situáciu človeka, a to odmietnutím kolektivistického chápania jeho postavenia v sociálnom prostredí, aké preferovala metóda socialistického realizmu a príklonom k súkromiu, k naliehavým problémom individuálneho bytia, neraz existenciálneho rázu" (Hochel, 2005, s. 72).

Podľa diskurzívnej psychológie dochádza prostredníctvom jazyka k strategickému prezentovaniu a vyjadrovaniu vlastnej identity. Z hľadiska subžánrových parametrov možno román definovať ako balzacovský typ románu, pretože zobrazuje vzostup a pád, lesk a biedu, či ako psychologický román, keďže sú s ňom obsiahnuté medziľudské vzťahy, dramatická premena vzťahov v jednej rodine. Jeden z hlavných protagonistov románu prežíva odcudzenie s najbližšími, trápi ho otázka morálky, pokúša sa nájsť harmóniu osobného prospechu a mravnosti, pričom sám je často nešťastný. Dej románu je postupný, sa odohráva, ako sme už spomínali, v konkrétnom čase v sociálne aj geograficky presne špecifikovanom prostredí.

Historický čas predstavuje obdobie začínajúce niekoľko mesiacov od skončenia druhej svetovej vojny. Dej končí februárom 1948, kedy nastala radikálna zmena či už spoločenského zriadenia alebo majetkových pomerov v Československu.
Idiolekt je jedným z prostriedkov charakteristiky postáv. Keďže dej zasadil do prostredia slovenského juhu, nemohol sa tomu vyhnúť, pretože táto oblasť je zreteľne jazykovo diferencovaná a má aj svoje jazykové špecifiká. Môžeme si to všimnúť na postave Riečana, ktorý vo svojej reči využíva nárečové prvky z blízkosti Banskej Bystrice, pretože odtiaľ pochádza. Jeho žena a dcéra sa týchto prvkov, v snahe splynúť s mestským prostredím, postupne zbavujú. Naopak, postavu Volenta (Valenta) Lančariča charakterizuje iný jazyk, on je rodený Paláčan. Jeho rozprávanie je bohaté na výskyt hungarizmov, niekedy tvorí intonačne skomolené slovenské výrazy.
Kompozičná rovina románu a realizácia fabuly nie je príliš zložitá, je využitá realistická metóda. Autor ho písal v období normalizácie, po stabilizovaní totalitnej komunistickej moci, kedy „vedúce osobnosti" usmerňovali literárny proces zdôrazňovaním a presadzovaním toho chápania literatúry ako prostriedku upevňovania socialistických myšlienok. Spisovatelia, ktorí chceli oficiálne publikovať, zápasili o uchovanie vlastnej umeleckej identity (Hochel, 2005, s. 72-73). Román sa vyznačuje špecifickou ortografiou, v ktorej sú vo veľkej miere využité príznakové slová, hungarizmy. Niekedy sa to prejavuje v slovách, niekedy v celých vetách: „Mondja meg neki, hogy én itt nöttem fel, úgyhogy innét nem mozdulok. Mondja meg neki, hogy hentes vagyok, es ehez megvannak a megfelelö popírjaim. Itt akarok maradni!" (Ballek, 1977, s. 23) alebo podľa ich významu. Výraznou postavou je Valent Lančarič, pomocník Štefana Riečana, ktorý mu pri predstavovaní sa povedal, že ho všetci volajú Volent. Už vokál „o" nám naznačuje vplyv maďarského prostredia, teda aj samotné meno Volent môžeme považovať za hungarikum, akýsi prvok „maďarskosti"pod vplyvom zmiešaného prostredia slovenského juhu. Bohatý výskyt hungarizmov zdôrazňuje percipientovi multikultúrny charakter textu.Ballek sa v Pomocníkovi sústredil na precíznu štylistiku súvetí, dôslednosť v makrokompozícii a mikrokompozícii a na bohatosť jazyka. Literárny vedec a kritik Albín Bagin, ktorý sa venoval literárnovednému a literárnohistorickému skúmaniu slovenskej literatúry 19. a 20. storočia, sa na margo románu Pomocník vyjadril: „Ladislav Ballek ako prozaik v Pomocníkovi dozrel: po spomienkových, lyrických a významovo menej bohatých, hoci dobre napísaných novelách predkladá epicky nasýtený, plnohodnotný román" (Bagin, 1979, s. 70).
Taktiež sú potrebné filologické znalosti, ako aj znalosť spoločensko-historického kontextu, na správnu interpretáciu či dekódovanie deja. Filologické porozumenie textu sa nevzťahuje len na texty staršej literatúry, ale aj na súčasné texty. Filologická príprava pomáha vyriešiť komplikácie pri porozumení textu na jeho rozmanitých úrovniach. Vzťahuje sa to predovšetkým na lexikálnu úroveň. „Napríklad v textoch staršej literatúry potrebujeme riešiť problém porozumenia archaizmov, historizmov, zastaraných významov, gramatických foriem. Všetko toto si vyžaduje odbornú znalosť a pripravenosť interpretátora na jeho prácu s textom" (Popovič, 1981, s. 39). Významnú úlohu v románe má kolorit výrazu, teda reliéf stvárneného prostredia: „dokumentárna markantnosť prostredia" (Miko), ktorá sa dosahuje cieľavedomou voľbou lexiky, kompozičnej a rečovej konvencie, motívov a špecifikami doby alebo prostredia, napríklad dialektizmy, archaizmy, hungarizmy, exotizmy... (Valček, 2006, s. 181). Mnohokrát nachádzame v texte slová alebo vety, ktoré v maďarskom jazyku nie sú napísané správne. Napríklad: „Ešik az eššó, šiť a nap, Janko Paprika mošogať" (Ballek, 1977, s. 12) má byť správne napísané nasledovne: Esik az eső, süt a Nap, Paprikajancsi mosogat.

2 ŠPECIFIKÁ KNIHY O CINTORÍNE

Daniela Kapitáňová, súčasná slovenská spisovateľka, sa narodila 30.7.1956 v Komárne. Vyštudovala divadelnú réžiu na Divadelnej fakulte Akadémie múzických umení v Prahe. V

roku 2000 debutovala knihou s názvom Kniha o cintoríne s podtitulom Prvá a druhá o kniha o cintoríne, ktorú vydala pod pseudonymom Samko Tále. Rozprávačom príbehu je retardovaný Samko Tále, a tak sa autorka obávala, ako čitateľská verejnosť túto knihu prijme, preto sa rozhodla nevydať ju pod vlastným menom. Jej druhou knihou je Nech to zostane v rodine! a treťou detektívny román s názvom Vražda v Slopnej. Všetky jej diela sú mimoriadne úspešné, o čom svedčia aj preklady do iných jazykov. Spisovateľka v súčasnosti žije a tvorí v Bratislave. Je jedinou autorkou v kontexte slovenskej literatúry, ktorej rozprávač príbehu je mentálne zaostalý, retardovaný (Maťovčík, 2008, s. 566). Ako súčasná ženská spisovateľka sa odlišuje od iných ženských autoriek, píšucich prevažne ženské romány. Venuje sa teórii detektívky (Barányiová, 2016, s. 91-92).

Knižný debut s názvom Kniha o cintoríne, s podtitulom Prvá a druhá kniha o cintoríne, vydala v roku 2000. V tom istom roku sa kniha stala Knihou roka. Je jej najznámejšou a najúspešnejšou publikáciou. Písala ju štyri roky. Kniha je dokonca aj v zvukovej podobe. Text v audioknihe číta Ľuboš Kostelný, ktorý úlohu Samka zvládol bravúrne. Kapitáňová v románe využíva špecifický jazyk, ktorý je príznačný pre hlavného hrdinu, retardovaného zberača kartónov, Samka Táleho. S názorom Dušana Taragela: „Románový hit Daniely Kapitáňovej spočíva v dokonalom zvládnutí jazyka literárnej postavy - idiota z malomesta" môžeme len súhlasiť. Percipient má pri čítaní diela naozaj pocit, že knihu napísal retardovaný človek. Slovná zásoba, štylizácia viet i naivný pohľad Samka na svet tomu nasvedčujú. Reč retardovaného človeka je v tomto diele výborne zvládnutá. Percipient má pri čítaní naozaj pocit, že knihu napísal mentálne zaostalý človek. Svedčí o tom celé vety, ako napríklad: „... hoci on nebol z Komárna, on tu bol len prenajatý" (Tále, 2005, s. 23).

„Potom zomrel na porazenie a ohľadom toho už nemusel Szervuszové nosiť v aute. Jeho matka má už 96 rokov a ešte žije, a ak nepôjde nikdy vlakom, tak bude žiť až do konca života" (Tále, 2005, s. 27).

„Môj otec vždy hovoril, že kefír vymysleli Mongolci a z toho sa dá vidieť, aký je to kultúrny národ, lebo vymysleli kefír. A nielen kefír, ale aj vyhnali z Mongolska Maďarov, lebo Maďarov nemá rád nikto na svete, lebo sú Maďari. Slovákov má každý rád na svete, lebo sú Slováci" (Tále, 2005, s. 48). Z podtitulu knihy vyplýva, že sa skladá z dvoch častí, pritom prvá časť je iba na necelú stranu a venuje v nej pozornosť opisu cintorína. „Cintorín má dve brány. Jednou chodia ľudia a druhou mŕtvoly. Mŕtvoly sú mŕtvi ľudia, čo zomreli. Sú v márnici. Márnica je dom, ktorý je postavený ohľadom mŕtvol. Pred ňou je dvor. Na dvore sú často pohreby. Je veľmi pekný" (Tále, 2005, s. 9).

Hlavnou postavou a rozprávačom príbehu je 44-ročný a 152 cm vysoký Samko. Samko bol každopádne komickou postavou. Sám o sebe tvrdil, že nie je debil, pretože má chorobu, ktorá má aj meno. Považoval sa za spisovateľa, pretože napísal už jednu knihu, hoci na jednu stranu. Kniha je sprevádzaná jeho vtipnými poznámkami a výrokmi, ako napríklad: „Za mňa sa nikto nemusí hanbiť, lebo ja veľmi viem, že čo a ako a čo, a som aj veľmi obľúbený a aj na ulici len vtedy vykrikujem, keď aj na mňa vykrikujú, inak ani ja nevykrikujem. Lebo ja veľmi viem, že čo a ako a čo" (Tále, 2005, s. 46). Podobných vtipných viet je v diele nespočetne veľa.

Dej románu je situovaný do Komárna, v etnicky zmiešanom slovensko-maďarskom prostredí. Vplyv prostredia možno vnímať aj cez mená postáv románu, napríklad Csipke Zoltán, Édesová Angelika, Szervusz Dávid či Szedílek Tonko. Samko svojsky opisuje postavy, ktoré sa v diele vyskytujú. Napríklad Gusta Rúheho nasledovne: „Starý Gusto Rúhe je starý a smradľavý, hoci je pôvodom Nemec z B. Štiavnice. Starý Gusto Rúhe sa často aj pomočí do kvetinovej výzdoby a visí mu spodná pera skoro až k brade a je modrá. Taká modrá ako modrá farba. Takú spodnú peru má starý Gusto Rúhe" (Tále, 2005, s. 25). Práve Gusto Rúhe predpovedal Samkovi, že bude spisovateľom a preto Samko napísal Knihu o cintoríne. Za pozornosť v tomto diele určite stojí autorská koncepcia textu, ktorá je podľa Tibora Žilku

charakterizovaná ako „vedomá stratégia autora vzhľadom na príjem diela. Autor chce v čitateľovi vyvolať estetický zážitok a tomu prispôsobuje tematické spracovanie diela, jeho kompozíciu, výber jazykovo-štylistických prostriedkov a pod." (Žilka, 2011, s. 56-57). Vyvolať estetický zážitok sa autorke týmto dielom rozhodne podarilo.
Na otázku, či mala konkrétnu predlohu alebo vzor na napísanie knihy, odpovedala: „V Komárne naozaj žil človek, ktorý chodil s vozíkom a zbieral kartóny. A urobila som totálnu začiatočnícku chybu, že na základe vizuálneho dojmu som vyfabulovala zvyšok jeho príbehu. Celé Komárno si potom myslelo, že som napísala jeho históriu, životný príbeh. Dokonca som počula, že keď Kniha o cintoríne vyšla, ten človiečik, ktorý bol naozaj mentálne postihnutý, ju podpisoval, uveril, že je jej hrdinom. Mrzí ma to, možno som mu ublížila – ale na druhej strane, možno som mu takto postavila pomník" (http://kultura.sme.sk/c/6434439/ako-vznika-hit-kniha-o-cintorine.html).

3 ZHRNUTIE

Z pohľadu súčasného percipienta má väčšiu výpovednú hodnotu prvé interpretované dielo, Pomocník. Ballek v ňom podáva obraz mesta, vykresľuje charaktery ľudí, zobrazuje ľudské osudy, priam vtiahne čitateľa do vtedajších reálií. Dej je prerozprávaný pútavým spôsobom. Film Ondreja Šulaja s rovnomenným názvom z roku 1982 sa v tom najpodstatnejšom zhoduje s literárnou predlohou. Postavu Štefana Riečana vnímame v knihe aj v jej filmovej adaptácii ako človeka skromného, čestného. Takisto totožne v oboch dielach je vykreslený charakter Lančariča ako temperamentného a morálne skazeného. Evy Riečanové (manželka a dcéra Štefana Riečana) sa takisto prispôsobili podmienkam v novom prostredí tak v knihe, ako i vo filme. Dôraz na dôležitosť prostredia je viac kladený v knihe, kde autor detailne opisuje Palánk.
Druhé interpretované dielo, Kniha o cintoríne, čitateľa skôr pobaví ako donúti zamyslieť sa nad životom v minulosti. Samko, mentálne retardovaný chlap, pôsobí dojmom dieťaťa. Sám seba považuje za šikovného a múdreho. Je postavou, ktorú v Komárne všetci poznajú a ako sám tvrdí, všetci si ho vážia.

Príspevok je súčasťou riešenia projektu UGA - Hungariká v slovenskej literatúre X/3/2017.

Použitá literatúra

1. ALABÁNOVÁ, M – GLOVŇA, J. *Slovensko-maďarský frazeologický slovník s cvičeniami z frazeológie*. Nitra: UKF, 2015. s. 141. ISBN 978-80-558-0816-1.
2. BAGIN, A. – ŠTEVČEKĽ J. *Niekoľko pohľadov na súčasnú slovenskú literatúru.* Bratislava: Smena, 1979. s. 177.
3. BALLEK, L. *Pomocník.* Bratislava: Vydavateľstvo SÚV SZM, 1977. s. 308.
4. BARÁNYIOVÁ, M. *Vyznania a priznania*. Nitra: Publica, 142 s. ISBN: 9788097231484.
5. ČEJKA, M. *Úvod do studia jazyka pro bohemisty*. 2. vyd. Praha: Státní pedagogické nakladatelství, 1987. 112 s.
6. HOCHEL, I. *Príbeh ako princíp*: *Ladislav Ballek*. 1. vyd. Bratislava : Literárne informačné centrum, 2005. 175 s. ISBN 80-89222-03-X.
7. MAŤOVČÍK, A. a kol. *Slovník slovenských spisovateľov 20. storočia.* Bratislava : Literárne informačné centrum, 2008. 576 s. ISBN 978-80-89222-48-3.
8. POPOVIČ, A. a kol. *Interpretácia umeleckého textu*. 1. vyd. Bratislava: SPN, 1981. 165 s.
9. TÁLE, S. *Kniha o cintoríne: prvá a druhá kniha o cintoríne*. Levice: L.C.A.-Koloman Kertész Bagala, 2005. 174 s. ISBN 80-89129-49-8.

10. VALČEK, P. *Slovník literárnej teórie : A-Ž.* 2. vyd. Bratislava: Literárne informačné centrum, 2006. 351 s. ISBN 80-89222-09-9.
11. ŽILKA, T. *Vademecum poetiky*. Nitra : Univerzita Konštantína Filozofa, 2011. 425 s. ISBN 978-80-8094-963-1.
12. (http://kultura.sme.sk/c/6434439/ako-vznika-hit-kniha-o-cintorine.html

Kontaktné údaje

Mgr. Hana Guzmická
Univerzita Konštantína Filozofa v Nitre
Fakulta stredoeurópskych štúdií
Ústav stredoeurópskych jazykov a kultúr
Dražovská cesta 4
949 74 Nitra
email: hanka.guzmicka@gmail.com

CREOLIZATION, NATURALIZATION, EXOTICIZATION AND HYBRIDIZATION IN SLOVAK LITERATURE

Hana Guzmická

Abstract

In literature, besides paying attention to the main idea, the storyline, the characters, and the conflicts, for critics it is also important to give consideration to the space as well as the mixing of cultures forasmuch as the story of epic texts takes place in an ethnically mixed environment. It is precisely from the aspect of the mixing of cultures (creolization) in Slovak literature that a significant place belongs to several writers such as Kálmán Mikszáth, Ladislav Ballek and Daniela Kapitáňová. Attention is paid to the definition and characterization of the concepts of creolization, exoticization, naturalization, hybridity and cultural hybridization.

Keywords: *creolization, exoticism and exoticization, naturalization, hybridity and cultural hybridization*

1 INTRODUCTION

Anton Popovič, the Slovak literary theorist, defines creolization as follows: "the saturation of the language of translation by the elements of the original language" (Popovič, 1971, p. 154). In Slovak literature, we meet its forms in the writings of Ivan Habaj, Peter Andruška and Ladislav Ballek. Kálmán Mikszáth, a Hungarian writer with Slovak roots also used creolization in his works. Let us now go over to the very clarification of the terms denoting environment specification also by giving particular examples.

The environment or space in the text is the place where the story takes place. "Thematically naturalization – exoticization are defined as the text-forming opposition. The author applies either a naturalizing viewpoint (giving preference to a home environment over others) or an exoticizing aspect (preferring a foreign environment to the home environment)" (Žilka, 2011, p. 288).

Slovak writers set their stories in the environment of the Slovak mountains (Slovak writers are the representatives of lyrical prose, for example Ľudo Ondrejov, Margita Figuli, Dobroslav Chrobák or František Švantner), of small towns (Samko Tále, Daniela Kapitáňová in Komárno environment, Dušan Dušek in the surroundings of Záhorie and Ladislav Ballek in Šahy, for which he created a name Palánk) and also of big cities (Pavel Vilikovský set the story of his novel Posledný kôň Pompejí [The Last Horse of Pompeii] in London environment, Peter Pišťanek focused the story on the environment of Bratislava's underworld in the novel Rivers of Babylon and Michal Hvorecký situates the story even in the faraway Dubai in the novel Posledný hit [The Final Hit]).

2 CREOLIZATION

One of the famous writers using creolization in his literary work was Kálmán Mikszáth. He is the author of successful books, for example Dáždnik svätého Petra [St. Peter's Umbrella], Obliehanie Bystrice [The Siege of Beszterce], Fešáci [Hunks], or Slovenskí rodáci. His Dáždnik svätého Petra (1893) is one of the world's most successful Hungarian literary works of all time. It is his most translated, most popular and most published work (Mikszáth, 2011, p. 252). Kálmán Mikszáth lived in a region where Slovak was an inseparable part of the reality of everyday life. In addition to the language, his identity is also based on the awareness of his origins and emotional ties to the birthplace (Mikszáth, 2008, p. 13).

Tibor Žilka, who in the 1980s published studies reflecting this theme – Južný kolorit v slovenskej próze [South Colour in Slovak Prose] or Kult južného neba [The Cult of the Southern Sky] – also dealt with the problem of creolization in Slovak prose. In Slovak literature, a group of authors emerged, whose works were dealing with the Slovak south – Ivan Habaj, Peter Andruška and Ladislav Ballek. In the period of Romanticism, Slovak literature took a contradictory stance towards the south. Discovering the extraordinary nature of its own territory was a major contributor on the internal constitution of Slovak literature. In terms of semiotic significance, mountains and forests have dominant position in Slovak national literature. Creolization of cultures in literary texts has a dialogical character.
The text also contained the elements of a negative provenance, under which the author expresses the evaluation aspect of a particular group of people or social class. Almost every work of Habaj, Andruška and Ballek is thematically linked to the southern environment, profiling the southern colour semiotically, for which thematic categories such as environment, characters and story are important. Not only Slovak literature produces works with a thematic focus on another nation; it is also the other way round. The Slovak environment, specifically Podolínec, a sub-Tatran town became an inspirational resource for the Hungarian writer Gyula Krúdy. The distinctive environment of Spiš and the beauty of the Slovak mountains, where he lived and studied as a child, became the subject of his literary work (Žilka, 1980, p. 112).

3 EXOTICISM AND EXOTICIZATION

The term exoticism comes from the Greek exótikos, meaning foreign, distant. This type of literary imagery which uses the lexicon or the factfiles of faraway countries, their history, customs, culture, is a major compositional motif, for example, in adventure literature. Elements of exoticism can be found in the 16th-18th century, for example in the works of J. J. Rousseau, M. E Montaigne, and J. F. Marmontel. In these works, they "responded to the massive cultural effects of the discovery and missionary journeys and the resulting fashion and collector's trends in art" (Valček, 2006, p. 104). Exoticization in the text represents a text-forming process that is based on the embedding of the plot in a foreign environment. "Through exoticization the code of another country is emphasized which has a direct impact on the linguistic and stylistic level of the text, where mainly the lexical elements from foreign languages (cowboy, lady, yurt, etc.) appear and are used, as well as names of distant places, plants, animals, descriptions of special habits and so on." (Žilka, 2011, p. 128). Exoticization is used rarely in Slovak literature. Mostly it is contained in the works of Vojtech Zamarovsky and Michal Hvorecký (Žilka, 2011, p. 128-129).

4 NATURALIZATION

The concept originally derived from Louise Althusser's works which relates to a process in which every foreign, new and unknown phenomenon is included in existing interpretative contexts, respectively that is interpreted in the context of a known reference frame. In the course of naturalization, that foreign is interpreted, evaluated, hierarchized and finally integrated respectively disintegrated in an automated, unreflected way. For reading literary works or for the reception of art, naturalization means that it always looks for an adequate, already established scheme for new forms of expression, new content. The designated forms should be able to be embedded into this scheme and inside it they should be understandable and should be capable of being evaluated. Only in this way their strangeness can be reduced. The network of schemata is changing gradually over time because the selected scheme itself needs to be expanded or restructured. In literary studies, the central aim is to deal with functional mechanisms and possibilities of naturalization. In this manner, the methods of understanding and interpreting (which are subjectively perceived as "natural") the text,

literature and culture are revealed as created, only relatively valid and historically, ideologically or politically motivated constructs. Based on these assumptions, all socially acceptable values, norms, and circulated "truths" (considered to be absolutely valid) are ultimately presented as originally foreign and later naturalized terms (Nünning, 2006, p. 543-544).

5 HYBRIDITY AND CULTURAL HYBRIDIZATION

Today the concept of hybridity includes a problematic circle of cultural crossbreds, which can be explained in a variety of ways, and which is also commonly referred to as "syncretism"; often it is also related to the concepts of pastiche, contamination, interculturality, multiculturalism, dialogicity, heteroglossia and carnival culture, nomadology. The concept developed in racial theories in the 19th century and became a cultural metaphor. In discussions on slavery, in the theory of type, eugenics as well as in anti-Semitic and Nazi texts, hybridity occurs as a racially colored argumentative figure. In the 1980s, hybridity became a key concept in the theory of culture. This strategic transformation is due to Bakhtin's concept of organic and deliberate hybridity of language phenomena. Politically functionalized linguistic hybridity has acquired the status of an intercultural thought figure. Hybrid as such is knowingly a hybrid term, which, like the phenomena it produces, is difficult to locate and must always be redefined: understanding this notion oscillates between more integrated multicultural and deconstructive notions (Nünning, 2006, p. 315-316).

In addition, as a subversive category, hybridity is argumentatively dependent on the antithesis of stable identities, nations, cultures and ethnic groups that is what many adherents of the theory of hybridity try to overcome. Considering the future application of the concept of hybridity, it is a question of what analytical or subversive function this concept will be able to take over as it begins to replace multiculturalism as a fashion, advertising strategy, and philosophy of business (Nünning, 2006, p. 316). "Hybridization is based on the mixing of artistic genres, professional genres and styles of humanities and natural sciences, creating a heterogeneous structure, absorbing travesty, plagiarism and pastiche" (Žilka, 1991, p. 21).

In a cultural context, the term hybridization is used predominantly in cases where there is a crossing of cultures (hybridity), gender identities or discourses. The father of this concept is Mikhail Mikhailovich Bakhtin, for whom hybridization, along with dialogization and dialogues, is one of the three possibilities of speech representation in a novel. Bakhtin, starting from the linguistic significance of the term hybridization, understands it as a "blending of two social languages within the same discourse" (Bakhtin, 1980, p. 130). In postmodern discussions, this concept has expanded or changed its meaning. One of the consequences of hybridization is that the boundaries between fictitiousness and factuality disappear (Nünning, 2006, p. 316).

Cultural hybridization (bastard culture) by mixing multiple languages occurs for example in the works of the French-American novelist, Raymond Federman, who in the text mixes French and English; Pavel Vilikovský's works include, besides his native Slovak, also English and Hungarian, or in the case of Pál Závada, who uses both Slovak and Hungarian in his literary texts. The book Kniha o cintoríne [Samko Tále's Cemetery Book] by Samko Tále, i.e. Daniela Kapitáňová may also be included here (Žilka, 2015, p. 43). The plot of the novel "is embedded in the Komárno environment and is characterized by (non)cultural Slovak-Hungarian hybridity brought to the position of absurdity and grotesqueness ..." (Žilka, 2015, p. 47).

6 CONCLUSION

Accepting multiple cultures within a single text is one of the features of multiculturalism that at the same time becomes an adequate form of tolerance towards otherness of multiple

cultures. At present, multiculturalism is also reflected in literature by using two or three languages in one text. With cultural hybridization we can also meet in Jadvigin vankúšik [Jadviga's Pillow] by the Hungarian writer Pál Závada, but also in the novel Posledný kôň Pompejí by Pavel Vilikovský, where the story is set in a London environment (Žilka, 2015, p. 45).

The paper is part of UGA project – Hungaricums in Slovak literature X / 3/2017.

Sources

1. BAKHTIN, B. B. *The novel as a dialogue*. 1.edition. Praha: Odeon, 1980. 479 p.
2. MIKSZÁTH, K. *Hunks*. Bratislava: Marenčin PT, 2008. 295 p. ISBN 978-80-89218-85-1.
3. MIKSZÁTH, K. *St. Peter´s Umbrella*. Bratislava: Marenčin PT, 2011. 252 p. ISBN 978-80-8114-087-7.
4. NÜNNING, A. (ed.). *Lexicon of the theory of literature and culture*. Brno: Host, 2006. 911 p. ISBN 80-7294-170-4.
5. POPOVIČ, A. a kol. *Interpretation of artistic text*. 1. edition. Bratislava: SPN, 1981. 165 p.
6. VALČEK, P. *Dictionary of literary theory: A-Ž.* 2. edition. Bratislava: *Literary Information Center*, 2006. 351 p. ISBN 80-89222-09-9.
7. ŽILKA, T. *The Cult of the Southern Sky*. In: *Slovak views*. 3/1980. 648 p. 107-112. ISSN 1335-7786.
8. ŽILKA, T. *Topic and style in postmodern*. Nitra: Constantine the Philosopher University in Nitra, Faculty of Education, 1991. 96 p.
9. ŽILKA, T. *Vademecum of poetics*. Nitra: Constantine the Philosopher University in Nitra , 2011. 425 p. ISBN 978-80-8094-963-1.
10. ŽILKA, T. *From intertextuality to intermediality*. Nitra: Constantine the Philosopher University in Nitra, 2015. 144 s. ISBN 978-80-558-0860-4.

The paper is published under the project Internationalization of Educational Process and Academic Environment at the CPU in Nitra.

Contact

Mgr. Hana Guzmická
Constantine the Philosopher University in Nitra
Faculty of Central European Studies
Institute of Central European Languages and Cultures
Dražovská cesta 4
949 74 Nitra
email: hanka.guzmicka@gmail.com

ODBORNÁ ZDRAVOTNÍCKA KOMUNIKÁCIA A ANATOMICKÁ NOMENKLATÚRA

PROFESSIONAL HEALTH COMMUNICATION AND ANATOMIC NOMENCLATURE

Ľudmila Majerníková, Marta Vojteková

Abstrakt

Práca lekárov, sestier a ostatních zdravotnických pracovníkov nepozostáva len z liečenia/ošetrovania ale aj z komunikácie s pacientom, jeho rodinou, zo vzájomnej výmeny informácií, dokumentovania zdravotného stavu pacientov, plánovania a koordinovania vlastnej odbornej činnosti. Vývoj odborných pojmov používaných v odbornej komunikácii súvisí aj s vývinom anatomickej nomenklatúry.

Kľúčové slová: *zdravotnícka komunikácia, anatomická nomenklatúra, zdravotnícky pracovníci, terminológia*

Abstract

The work of doctors, nurses and other healthcare professionals is not only about treating / treating, but also communicating with the patient, his family, sharing information, documenting the health of patients, planning and coordinating their own professional activities. The development of professional terms used in professional communication is also related to the development of the anatomical nomenclature.

Key words: *health communication, anatomical nomenclature, health workers, terminology*

1 ÚVOD DO PROBLEMATIKY

Vývoj jazyka a spoločnosti je úzko spätý. Týka sa to aj rôznych odvetví, vrátane medicíny. Terminológia medicíny sa vyznačuje dlhou históriou i jazykovým vývojom. Základom medzinárodnej podoby medicínskych termínov, ktoré sa delia na anatomické a klinické, je latinčina a gréčtina. Od medzinárodnej anatomickej terminológie sú závislé jej národné verzie, sú z nej odvodené.

Úspech v úsilí o jednotnú medzinárodnú kodifikáciu anatomickej terminológie sa dostavil až koncom 19. storočia prácou *Bazilejské anatomické názvoslovie* (1895), po ňom boli schválené a publikované *Jenské anatomické názvoslovie* (1935) a *Parížske anatomické názvoslovie* (1955). Termíny obsiahnuté v *Parížskom anatomickom názvosloví* podliehali každých päť rokov revízii na medzinárodných kongresoch anatómov. Poslednú revíziu vykonala *Medzinárodná anatomická terminologická komisia*, predniesla ju na svojej XII. schôdzi v New Orleanse (1997) a uverejnila pod názvom *Terminologia Anatomica* (1998) (Bujalková, 2008, s. 324). Táto terminológia obsahuje celkovo 7 428 termínov.

Na základe medzinárodnej podoby anatomickej nomenklatúry vznikli národné názvoslovia. V slovenčine je za prvé dielo predstavujúce slovenskú anatomickú nomenklatúru v ucelenej podobe považované *Nomina anatomica. Slovenské telovedné názvoslovie* (Ledényi-Ladziansky, 1935). Neskôr bolo pod redakciou J. Horeckého publikované *Anatomické názvoslovie* (1962) a začiatkom 21. storočia slovníky autoriek A. Holomáňovej a I.

Brucknerovej: *Srdcovocievna sústava*. *Anatomické názvy* (2000), *Anatomické názvy I* (2001), *Anatomické názvy II* (2002), *Anatomické názvy III* (2003). V roku 2007 bol v knižnej aj elektronickej verzii publikovaný slovník pod názvom *Slovenské lekárske názvoslovie. Slovak medical terminology. Nomina medica slovaca. Diel I. Anatómia. Latinsko-anglicko-slovenský slovník*, ktorú zostavil O. Kadlec (Bujalková, 2008, s. 324).

Najnovšou slovníkovou prácou v oblasti slovenskej anatomickej terminológie je *Anatomický slovník* v autorstve latinistu F. Šimona a kol. z oblasti humánnej a veterinárskej anatómie, ktorý vyšiel v roku 2015. V tom istom roku bol publikovaný *Latinsko-slovensko-poľský slovník anatomických termínov I* (2015) v autorstve Marty Vojtekovej. Slovník podáva anatomickú terminológiu v troch jazykoch: v latinskom, slovenskom a poľskom, zostavenú abecedne, podľa latinského jazyka. Venuje sa vybranej anatomickej oblasti: kostrovej sústave a kostiam, spojeniam kostí a sústave kĺbov. Okrem kompletného súboru termínov zo sústavnej anatómie uvedený slovník podáva aj termíny pomenúvajúce časti ľudského tela, ktoré patria do všeobecnej anatómie (Vojteková, 2015, s. 11).

1.1 Zdravotnícka terminológia

Cieľom teórie terminológie je utvoriť formálne, sémantické a funkčné opisy lexikálnych jednotiek, ktoré majú terminologický význam a vysvetľujú vzťah k ostatným jednotkám jazykového systému. Predmetom lingvistickej teórie termínov sú kognitívne jednotky ako lexikálne jednotky prirodzeného jazyka. V súlade s trojrozmernou koncepciou sa terminologické jednotky chápu ako kognitívne zložky (pojmy), lingvistické zložky (termíny) a komunikačné zložky (situácia).

Lekárska terminológia nie je len inventárom termínov – súhrnom jestvujúcich poznakov o termínoch ako izolovaných entitách, ale určitým spôsobom organizovaný systém vedeckých informácií korešpondujúcich s pojmami (a realitou), ako aj vzťahov medzi nimi. Tým plnia termíny funkciu predpokladu, prostriedku alebo výsledku vedeckej tvorby.

Lekár, príp. zdravotník v praxi v praxi má dočinenia s pacientom, ktorý trpí nejakou chorobou. Na základe určitých kritérií sa snaží diagnostikovať túto chorobu a určiť spôsob terapie. Využíva pritom svoje vedomosti (vnútorný lexikón), poznatky získané z vonkajších zdrojov (vonkajší lexikón), ako aj skúsenosti a intuíciu. Postupuje pritom od reálneho pacienta (ktorý predstavuje neopakovateľnú jednotlivinu (nejestvujú dvaja identickí pacienti) k diagnóze. Používa pritom metódou identifikácie jednotlivých subjektívnych a objektívnych príznakov, zovšeobecňovanie, asociácií, porovnávania a podobných logických operácií. Záver formuluje ako diagnózu – všeobecninu, ku ktorej sa dospelo abstrakciou a podľa nominalistov vlastne v skutočnosti nejestvuje; jestvuje len – vo forme pojmov v našich mysliach a v literatúre – vo forme termínov (tie slúžia na jej komunikáciu).

1.2 Funkcie terminológie

Terminologický systém nie je len inventárom izolovaných termínov. Ide o sústavu, ktorá má hierarchické usporiadanie, pričom miesto termínu a jeho vzťahy k ostatným termínom majú kľúčový význam. Termíny majú o. i. tieto funkcie: (1) komunikatívna funkcia; (2) poznávacia funkcia; (3) akumulatívna funkcia; (4) vyjadrovacia funkcia; (5) koordinačná funkcia; (6) kognitívna funkcia; (7) kogitatívna funkcia; (8) koordinačná funkcia; (9) vysvetľovacia funkcia (*Úvod do slovenskej lekárskej terminológie. Význam terminológie pre medicínu*, 2013, s. 5–7).

Tab. 1. Funkcie terminológie v medicíne

Funkcie terminológie v medicíne	(1) Komunikatívna funkcia
	(2) Normatívna funkcia
	(3) Vyjadrovacia funkcia
	(4) Poznávacia funkcia
	(5) Kogitatívna funkcia
	(6) Kognitívna funkcia
	(7) Akumulačná funkcia
	(8) Klasifikačná funkcia
	(9) Koordinačná funkcia

1.3 Komunikatívna funkcia

Termíny umožňujú komunikáciu, t. j. výmenu informácií medzi odborníkmi príslušného odboru, medzi rozličnými disciplínami, zdravotníckymi prostrediami, krajinami. Pojmovo orientovaná terminológia *Wüstera* (1979, s. 22–23) sa zameriava na racionálne chápanie reality a skúmanie tradičných spôsobov jej zachycovania (onomaziologický prístup), kým kanadská a švajčiarska škola v poňatí Saussura pokladá jazykový znak za element, ktorý má dve súvisiace zložky: označované a označujúce (termín a pojem).

Za východisko terminologickej práce pokladá tradičná terminológia pojmovú sústavu, kým textovo orientovaní terminológovia terminologický reťazec ako výraz vedeckej a technickej komunikácie. Do tohto reťazca patria tri zložky:

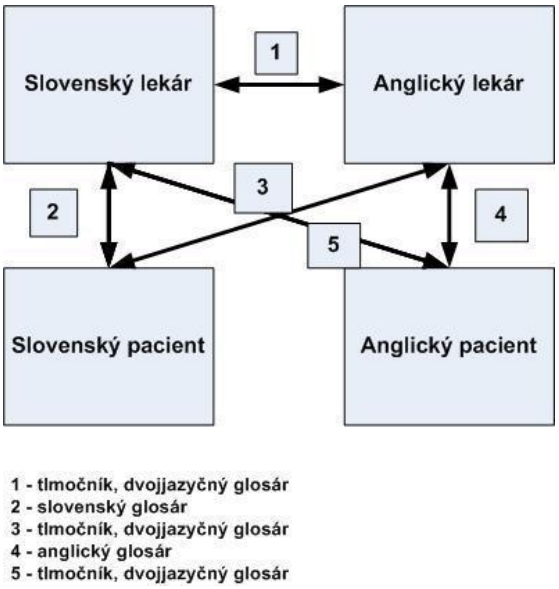
1. producenti termínov – doménoví experti a terminológovia;
2. produkty terminologickej práce – vedecké a technické texty a terminológie;
3. používatelia – priami (adresáti komunikácie) a nepriami (prekladatelia, tlmočníci, redaktori, učitelia odborných jazykov...) Ako osobitná zložka sa uvádza špecializovaná lexikografia a metódy tvorenia termínov, ich zhromažďovania, triedenia, normalizácie a rozširovania.

Nejde pritom o jednosmerný trojčlenný reťazec, ale o systém, v ktorom sú všetky zložky pospájané viacsmernými vzťahmi.

Rozoznávajú sa štyri komunikačné situácie:

1. komunikácia medzi dvoma odborníkmi (napr. medzi dvoma lekármi),
2. komunikácia medzi odborníkom a poloodborníkom (študentom medicíny, zdravotníckym personálom ap.),
3. komunikácia medzi odborníkom a neodborníkom (pacientom),
4. komunikácia medzi dvoma neodborníkmi (napr. pacientmi).

Ak pritom zohľadníme ešte potrebu znalosti jazyka, v ktorom sa realizuje komunikácia, komplikuje komunikačnú situáciu skutočnosť, že do hry vstupuje nejaký sprostredkovateľ. Keďže počítačové spracovanie prirodzeného jazyka a strojový preklad sú veľmi vzdialené ciele, sú informačné systémy pri riešení sémantickej interoperability odkázané na sprostredkovateľov (*Úvod do slovenskej lekárskej terminológie. Význam terminológie pre medicínu*, 2013, s. 11–14).



Obrázok 1: Schematické znázornenie komunikačných situácií v závislosti od jazykových a odborných znalostí komunikantov

Sprostredkovateľ nie je potrebný, ak recipient pozná jazyk komunikácie a terminológiu. Ale ak recipient síce pozná jazyk komunikácie, ale nerozumie termínom, potrebuje sprostredkovateľa, ktorým môže byť významový slovník. Ak recipient nepozná jazyk komunikácie, ale ovláda danú odbornú oblasť, je potrebný sprostredkovateľ, ktorým je prekladateľ alebo tlmočník, resp. dvojjazyčný prekladový slovník – lexikón. Ak recipient nepozná jazyk komunikácie ani terminológiu danej oblasti, musí byť sprostredkovateľom dvojjazyčný významový slovník. Sprostredkovatelia musia byť založené na normalizovanej terminológii. Normalizácia nie je pritom cieľom, ale skôr prostriedkom na uľahčenie komunikácie a zníženie informačných strát (*Úvod do slovenskej lekárskej terminológie. Význam terminológie pre medicínu*, 2013, s. 11–14).

1.4 Komunikačné kompetencie zdravotníkov

Profesionálna prax vyžaduje ovládanie odborného jazyka a terminológie. Pod pojmom odborná terminológia rozumieme súbor termínov, odborných názvov z určitého vedného alebo praktického odboru ľudskej činnosti. Je potrebná na uplatnenie komunikačných zručností, ktoré tvoria základ zručností potrebných pre jednotlivca, aby úspešne napredoval a zaradil sa do odbornej spoločnosti (Horňáková, 2011).

Každý medicínsky odbor obsahuje špecifické odborné výrazy a odborné skratky, ktoré sú pre určité pracovné zaradenie typické a ktorým nemusia rozumieť ani odborníci špecializujúci sa v inej oblasti (Uherová, 2012). Každá oblasť má svoje odborné názvoslovie, pracovné zaradenie ktoré je nevyhnutné pri každodennej komunikácii v rámci vykonávania zdravotníckej praxe, alebo pri štúdiu medicínskeho alebo nelekárskeho vedného odboru (Ištoňová, 2013). Niektoré odborné výrazy majú okrem všeobecného významu aj špecifický význam, platný pre určitú oblasť medicíny/zdravoníctva, alebo sa používajú len v danom odbore. Napríklad v manuálnej terapii, ktorá sa môže vykonávať v rámci kinezioterapie (pohybová liečba) sa používajú slová ako sú: manipulácia, mobilizácia, bariéra, predpätie, blokáda a podobne.

Profesionálna komunikácia predstavuje prísne špecifická pre každé povolanie alebo prostredie, ktoré používa vlastnú terminológiu, techniky a žargón. Využíva tieto nasledovné charakteristické prvky:

- terminológiu príslušného študijného odboru
- špecifické výrazové prostriedky
- komunikačné techniky, nástroje a metódy komunikácie
- jasné vymedzenie komunikačného cieľa – stupeň záväznosti a zodpovednosti voči komunikantom
- spôsob riešenia komunikačných konfliktov.

Aktívne počúvanie v profesionálnej komunikácii je dnes absolútnou nevyhnutnosťou, kľúčom k správnym rozhodnutiam a úspešnému výsledku konštruktívnej komunikácie, pri ktorej je nevyhnutné rešpektovať zvláštnosti v danom odbore.

Termín diskurzná komunita spája dva termíny: diskurz a komunita. Diskurz (prehovor, jazykový prejav, komunikát, text) sa realizuje v rámci určitých konvencií, ktoré sú definované komunitami, teda skupinami ľudí, ktoré používajú, a tým aj vytvárajú určitý diskurz, či už ide o akademické, profesné alebo o sociálne skupiny.

Swales (1990) navrhol šesť vlastností, ktoré identifikujú určitú skupinu ako diskurznú komunitu DK, ktorú uvádzame v kontexte komunity zdravotníckych pracovníkov.
1. *DK má jasne dohodnutý súbor spoločných verejných cieľov*. Ciele môžu byť formálne spísané v dokumentoch alebo môžu byť skryté, nevyslovené. Ako príklad možno uviesť *Standards of Nurses´ Practice*, v ktorých sú zakotvené ciele ošetrovateľskej starostlivosti. Vypracovala ich Americká asociácia sestier a používajú sa v anglicky hovoriacich krajinách. Slovenským ekvivalentom sú *Štandardy ošetrovateľskej starostlivosti*.

2. *DK má mechanizmy interkomunikácie medzi svojimi členmi*. Spolupatričnosť k danej DK zahŕňa interakciu s ostatnými členmi prostredníctvom interaktívnych (schôdze, konferencie, semináre), ako i písaných mechanizmov (obežníky, e-maily, listy, články v časopisoch atď.), a to nielen v lokálnom ale i globálnom meradle. DK ZP využíva všetky uvedené mechanizmy.
3. *DK používa svoje mechanizmy primárne na poskytovanie informácií a spätnej väzby,* t. j. nie na spoločenský styk. Výmena informácií je rôzna v závislosti od cieľov. V medicíne a ošetrovateľstve poskytovanie informácií a spätná väzba prebiehajú dvojakých spôsobom: smerom k odborníkom, v rámci vlastnej DK (*in-group communication*) ide o komunikáciu s kolegami, nadriadenými, inými odborníkmi v rámci zdravotníctva a inštitúciami, smerom k laickej verejnosti, pacientom a ich rodinným príslušníkom (*out-group communication*). Napr. prostredníctvom anamnézy, pokynov, odpovedí na často kladené otázky, letákov, plagátov a pod.

4. *DK využíva jeden alebo viac žánrov na komunikačnú podporu svojich cieľov.* Repertoár žánrov používaných v klinickom prostredí je veľmi pestrý tak z hľadiska témy, ktorá vstupuje do textu (zoznam diagnóz, návod na používanie prístroja, príjem a výdaj tekutín a pod.), ako aj z hľadiska formy a funkcie, ktorú plnia. Žáner sa považuje za sociolingvistickú aktivitu, prostredníctvom ktorej členovia určitej profesijnej komunity dosahujú svoj cieľ. Písomné žánre dokumentujú (napr. teplotná tabuľka, súpis ošatenia), informujú (FAQ), alebo organizujú prácu DK (napr. ošetrovateľský proces v časti ordinácie), čo možno vyjadriť schémou: účel, obsah, forma, účastníci, čas a miesto komunikačnej interakcie, alebo inými slovami prečo, čo, ako, kto, kedy a kde. To znamená, že ZP používa dokumentáciu (document genres) nielen na zaznamenávanie zdravotného stavu a prognózy pacientov ale aj na písomnú

komunikáciu s ostatnými členmi DK, ktorej cieľom je koordinovanie činností a výmena poznatkov. Existujú aj žánre zmiešané, ktoré plnia viac funkcií (ošetrovateľský proces).

5. *Okrem vlastných žánrov si DK osvojila určitú špecifickú lexiku.* Použitie špecifickej lexiky nielenže charakterizuje danú DK, ale zároveň ju izoluje od ostatných. DK blokuje vstup tým, ktorí nie sú oboznámení s jej lexikou. Lexiku DK ZP tvoria odborné termíny, ktoré sú latinského a gréckeho pôvodu, a systém skratiek a skratkových slov. Využívajú ich tak lekári, ako aj sestry vzhľadom na potrebu každodennej interakcie, spoločný cieľ a používanie spoločných žánrov (teplotná tabuľka, karta pacienta a pod.) Okrem toho obidve uvedené DK majú vlastnú lexiku - lekárske diagnózy, štandardizovanú klasifikáciu výkonov, ošetrovateľskú štandardizovanú terminológiu (ošetrovateľské diagnózy, názvy ošetrovateľských výkonov a pod.). Obidve DK v komunikácii s nečlenmi daných komunít, s pacientmi a rodinnými príslušníkmi využívajú bežný hovorový jazyk, ktorý plní funkciu synoným tak k lekárskej ako aj ošetrovateľskej terminológii.

6. *DK má ohraničený počet členov s vhodným stupňom odbornej a diskurznej expertízy.* DK má tak novicov, ako i odborníkov – starých členov. Aby boli novici považovaní za právoplatných členov danej DK, musia preukázať určité minimálne množstvo expertízy, znalosti v danej oblasti, vrátane rečovej a písomnej komunikačnej kompetencie, ktorá sa nepovažuje za prirodzenú danosť, ale za naučenú zručnosť, tabuľka, karta pacienta a pod.) Okrem toho obidve uvedené DK majú vlastnú lexiku - lekárske diagnózy, štandardizovanú klasifikáciu výkonov, ošetrovateľskú štandardizovanú terminológiu (ošetrovateľské diagnózy, názvy ošetrovateľských výkonov a pod.). Obidve DK v komunikácii s nečlenmi daných komunít, s pacientmi a rodinnými príslušníkmi využívajú bežný hovorový jazyk, ktorý plní funkciu synoným tak k lekárskej ako aj ošetrovateľskej terminológii (Valdmanová, 2013).

Zoznam bibliografických odkazov

1. ALEKSANDROWICZ, R. – GIELECKI, J. – GACEK W. (1997): *Słownik mian anatomicznych łacińsko-polsko-angielski*. Warszawa: Wydawnictwo Lekarskie PZWL.
2. ARNTZ, R. – PICHT, H. – MAYER, F. (2002): *Einfuhrung in die Terminologiearbeit, 4. Auflage.* Hildesheim – Zurich – New York: Georg Olms Verlag. ISBN 978-348-7115-535.
3. BARNA, K. – FINĎO, B. – HORECKÝ, J., eds. (1959): *Veľký rusko-slovenský lekársky slovník*. Bratislava: Vydavateľstvo Slovenskej akadémie vied.
4. BOBRYK, I. I. – KOVEŠNYKOV, V. H., eds. (2001): *Medzinárodná ukrajinská nomenklatúra*: *Ukrajinský štandard*. Kyjev: Zdorovia.
5. BUJALKOVÁ, M. (1991): *Slovotvorná motivácia genetických termínov v medicíne*. Kandidátska dizertačná práca. Bratislava: Jazykovedný ústav Ľ. Štúra SAV.
6. BUJALKOVÁ, M. (1999): Eponyms in Medical Terminology. In: *Bratislavské lekárske listy*, 100/5, s. 271 – 272.
7. BUJALKOVÁ, M. (2008): Quo vadis, terminologia medica? (Alebo o smerovaní súčasnej lekárskej terminológie). In: *Kultúra slova*, 42/6, s. 321 – 326.
8. BUJALKOVÁ, M. (2009): O budúcnosti eponým v medicíne. In: *Kultúra slova*, 43/4, s. 193 – 198.
9. BUNGANIČ, P. (1985): *Slovensko-ukrajinský slovník.* Bratislava: Slovenské pedagogické nakladateľstvo.
10. CABRÉOVÁ, M. T. (2003): Theories of Terminology. Their Descriptio, Prescription and Explanation. In: *Terminology*, 9/2, s. 163 – 199.

11. ČERKASOV, V. – BOBRYK, I. – HUMINSKYJ, J. – KOVAĽČUK, O. (2010): *Medzinárodná anatomická terminológia* (*latinské, ukrajinské, ruské a anglické ekvivalenty*). Vinnycia: Nova knyha.
12. DIN 2342-1: 1992-10: (2011): Begriffe der Terminologielehre; Grundbegriffe. Berlin.
13. DOLNÍK, J. (2010): *Jazyk, človek, kultúra.* Bratislava: Kalligram.
14. DROZD, Ľ. – SEIBICKE, W. (1973): *Deutsche Fach- und Wissenschaftssprache.* Wiesbaden: Oscar Brandstetter Verlag.
15. DŽUGANOVÁ, B. (2002): Terminológia ako vedná disciplína. In: *Kultúra slova*, 36/3, s. 129–139.
16. DŽUGANOVÁ, B. (2007): Vrstvy hematologickej terminológie. In: *Lingvistické aspekty anglického odborného jazyka.* Košice: Katedra anglistiky a amerikanistiky FF UPJŠ, s. 12–25.
17. HOLOMÁŇOVÁ, A. – BRUCKNEROVÁ, I. (2000): *Srdcovocievna sústava. Anatomické názvy. Latinsko-anglicko-slovenský slovník.* Bratislava: Vydavateľstvo Elán.
18. HOLOMÁŇOVÁ, A. – BRUCKNEROVÁ, I. (2001): *Anatomické názvy I. Latinsko-anglicko-slovenský slovník.* Bratislava: Vydavateľstvo Elán.
19. HOLOMÁŇOVÁ, A. – BRUCKNEROVÁ, I. (2002): *Anatomické názvy II. Latinsko-anglicko-slovenský slovník.* Bratislava: Vydavateľstvo Elán.
20. HOLOMÁŇOVÁ, A. – BRUCKNEROVÁ, I. (2003): *Anatomické názvy III. Latinsko-anglicko-slovenský slovník.* Bratislava: Elán.
21. HORECKÝ, J., ed. (1962): *Anatomické názvoslovie.* Bratislava: Vydavateľstvo Slovenskej akadémie vied.
22. HORŇÁKOVÁ, A.: Ako komunikovať v cudzích jazykoch úspešne a efektívne. Prešov:
Prešovská univerziata v Prešove. 2011, 146s., ISBN 978-80-555-0377-6.
23. IŠTOŇOVÁ, M.: 2013. Fyzioterapia. In: KOCIOVÁ, K. a kol. Základy fyzioterapie. 1. vyd.Martin: Osveta, 2013. 238 s. ISBN 978-80-8063-389-9.
24. KVASZ, L. (2010): Náčrt teórie potencialít jazyka matematika. In: V. Kvasnička, J. Pospíchal, P. Návrat, P. Lacko, P. Trebatický (eds.): *Umelá inteligencia a kognitívna veda II*. Bratislava: Slovenská technická univerzita, s. 263–289.
25. LEDÉNYI-LADZIANSKY, J. (1935): *Nomina anatomica. Slovenské telovedné názvoslovie.* Turčiansky Sv. Martin: Matica slovenská.
26. LEDÉNYI-LADZIANSKY, J. (1935): *Nomina anatomica. Slovenské telovedné názvoslovie.* Turčiansky Sv. Martin: Matica slovenská.
27. MAĎAR, O. (2013). Synonymia v lekárskej terminológii (v kontexte slovensko-ukrajinského prekladu). In: *Studia Slovakistica 13*: *Súčasné tendencie slavistiky.* Užhorod: Vydavateľstvo Olexandry Harkušovej, s. 54 – 61.
28. MASÁR, I. (1991): *Príručka slovenskej terminológie.* Bratislava: Veda.
29. MUSIL, V. a kol. (2010): Anatomické názvosloví: historie a aktuální problémy. In: *ProInflow*, 2/1. [Cit. 2017-12-07.] Dostupné na internete: <http://pro.inflow.cz/anatomicke-nazvoslovi-historie-aktualni-problemy>
30. POŠTOLKOVÁ, B. – ROUDNÝ, M. – TEJNOR, A. (1983): *O české terminologii*. Praha: Academia.
31. SMITH, B. (2009): From Concepts fo Clinical Reality: An Essey on Benchmarking of Biomedical Terminologies. In: *J. Biomed. Inform*, 39/3, s. 288–298.
32. SOKOLOVÁ, M. – OLOŠTIAK, M. – IVANOVÁ, M. a kol. (2012): *Slovník koreňových morfém slovenčiny.* 3. uprav. a dopl. vyd. Prešov: Prešovská univerzita v Prešove.

33. ŠIMON, F. – DANKO, J. – ARTIMOVÁ, J. – ZBOROVJAN, M. (2015): *Anatomický slovník.* Martin: Vydavateľstvo Osveta.
34. ŠIMON, F. – MAREČKOVÁ E. (2002): Lingua „anglatina“ v medicínskej terminológii. In: A. Ďuricová, V. Křečková (eds.): *Odborná komunikácia v zjednotenej Európe. Zborník referátov z medzinárodného seminára.* Banská Bystrica – Praha: Univerzita Mateja Bela – Jednota tlmočníkov a prekladateľov.
35. *Terminologia Anatomica* (1998). Federative Commitee on Anatomical terminology (ed.). Stuttgart – New York: Georg Thieme.
36. UHEROVÁ, Z.: Niektoré špecifiká nemeckej lekárskej terminológie. Cudzie jazyky, odborná komunikácia a interkultúrne fenomény [elektronický zdroj]: [zborník z medzinárodného vedeckého seminára Katedry CJ Vysokej školy medzinárodného podnikania ISM Slovakia]. Prešov: VŠMP ISM Slovakia v Prešove, 2009. s. 152-158. ISBN: 978-80-89372-09-6.
37. *Úvod do slovenskej lekárskej terminológie. Je terminológia vedou?* (2013). Asclepios. [Cit. 2017-12-07.] Dostupné na internete: <http://www.datasolution.sk/pdf/t2.pdf?PHPSESSID=9c9d4c3dcf9c892441c9bb8e52ae4bff>
38. *Úvod do slovenskej lekárskej terminológie. Význam terminológie pre medicínu* (2013). Asclepios. [Cit. 2017-12-07.] Dostupné na internete: <http://www.datasolution.sk/pdf/t3.pdf?PHPSESSID=9c9d4 c3dcf9c892441c9bb8e52ae4bff>
39. Valdmanová, K. Pragmatické a sociolingválne aspekty v učebniciach anglického jazyka pre zdravotnícky personál. Prešovská univerzita v Prašove, 2013. ISBN 978-80-555-0749-1
40. VOJTEKOVÁ, M. (2015): *Latinsko-slovensko-poľský slovník anatomických termínov I.* Prešov: Vydavateľstvo Prešovskej univerzity.
41. VOJTEKOVÁ, M. (2016a): *Slovenské a poľské adjektívum z aspektu slovotvornej motivovanosti*. Prešov: Vydavateľstvo Prešovskej univerzity.
42. VOJTEKOVÁ, M. (2016b). Slovenská anatomická terminológia – súčasný stav a výzvy. In: *Studia Slovakistica 16*: *Slovenský jazyk a literatúra v zrkadle prekladu.* Užhorod: Vydavateľstvo Olexandry Harkušovej, s. 26 – 33.
Vydavateľstvo PU, 2011. 146s. ISBN 978-80-555-0377-6.
43. WÜSTER, E. (1979): *Einfüh rung in die Allgemeine Terminologielehre und Terminologische Lexikographie.* Wien – New York: Springer.

Kontaktné údaje

PhDr. Ľudmila Majerníková, PhD.
ludmila.majernikova@unipo.sk
Faculty of Health Care, University of Presov, Presov; Slovakia
Partizánska 1 Prešov
04001 Prešov Slovakia

MOŽNOSTI A LIMITY DRUHOŠANCOVÉHO VZDĚLÁVÁNÍ ROMŮ

POSSIBILITIES AND LIMITS OF SECOND CHANCE EDUCATION OF ROMA

Silvia Lukáčová

Abstrakt

V príspevku sa zamýšľame nad tým, prečo napriek existencii pomerne veľkej skupiny dospelých s chýbajúcim vzdelaním na Slovensku doposiaľ neexistuje primeraná reakcia na tento problém vo vzdelávacej politike. Charakteristiky dospelých Rómov z marginalizovaných komunít ako učiacich sa a výskumné ako aj praktické poznatky zo zahraničia tvoria východisko pre uvažovanie o možnostiach vytvárania reálnych príležitostí pre získanie stupňa vzdelania tými, ktorí ho z rôznych dôvodov nezískali v iniciálnej fáze vzdelávania.

Kľíčová slova: *druhošancové vzdelávanie, Rómovia, bariéry participácie*

Abstract

In the paper we focus on why, despite the existence of a relatively large group of adults with a lack of education in Slovakia, there is still no adequate response to this problem in education policy. The characteristics of adult Roma from marginalized communities as learners and research as well as practical knowledge from abroad form the basis for considering the possibilities of creating real opportunities for obtaining an education degree by those, who did not obtain an education in initial phases of education.

Key words: *second chance education, Roma, barriers of participation*

1 ÚVOD

Vzdelávacie cesty Rómov z marginalizovaných skupín majú v porovnaní s nerómskym obyvateľstvom kvalitatívne i kvantitatívne nižšiu úroveň (počet rokov strávených v škole je celkovo nižší a kvalita vzdelávania je častejšie subštandardná). Jednou z príčin i dôsledkov tohto stavu je aj skutočnosť, že vzdelanie nepredstavuje v rómskom sociálne vylúčenom spoločenstve faktor sociálnej stratifikácie. Okrem mnohých príčin socio-kultúrneho, socio-ekonomického i pedagogického charakteru, považujeme za príčinu nepriaznivého stavu a vývoja vzdelanostnej úrovne Rómov z marginalizovaných komunít aj lineárnosť vzdelávacieho systému. Ten chápeme ako pevne ukotvený, overený a legislatívne ošetrený, chronologicky na vnútorné etapy vzdelávania nadväzujúci proces získavania vzdelanostného statusu, ktorý je rámcovaný životným spôsobom hlavnej kultúry. Je založený na vzájomnej kompatibilite úspešnej prípravy na povolanie v systéme školstva – od predškolského až po vysokoškolské vzdelávanie, ktoré je podmienkou pre začlenenie na trh práce, získanie zamestnania, ktoré je zasa kľúčovým atribútom hodnotenia celkovej kvality života. Súčasný model školskej edukácie dospelých nie je dostatočne otvorený a neponúka funkčnú alternatívu pre získanie stupňa vzdelania tými, ktorí z rôznych dôvodov nedokázali získať vzdelanie vo veku na to určenom.

1.1 Emancipačný potenciál vzdelávania dospelých

Pokračujúcim systémom edukácie v koncepte celoživotného vzdelávania, ktorý by mal ponúkať možnosť doplniť si vzdelanie v dospelom veku, je systém vzdelávania dospelých, osobitne jeho subsystém – školské vzdelávanie dospelých. Vzdelávanie dospelých v súčasnom nastavení zohráva viac adaptačnú než kompenzačnú funkciu, teda je prispôsobené upevňovaniu pozícií tých, ktorí boli počas predchádzajúcich fáz vzdelávania úspešní. Pre tých, ktorí z rôznych dôvodov nedokázali uspieť v raných fázach prípravy na povolanie, nedokáže súčasný systém vzdelávania dospelých vytvárať priestor na dorovnávanie ich vzdelanostného hendikepu. Školská legislatíva pritom tento priestor ponúka (*Zákon č. 245/2008 o výchove a vzdelávaní*, *Zákon č. 131/2002 o vysokých školách*), avšak najmä školské vzdelávanie dospelých je skôr ojedinelou ako systémovou praxou (s výnimkou externého štúdia na vysokých školách). Uvedené konštatovanie sa netýka len školského vzdelávania dospelých na Slovensku. Školský systém je v systéme celoživotného vzdelávania fundamentálnym prvkom, napriek tomu školy doposiaľ nedostatočne reflektujú na výzvu stať sa zásadným aktérom poskytovania školského vzdelávania pre dospelých (Holford, Mleczko, 2013). V strategickom dokumente Európa 2020 sa nachádza kritické vyjadrenie adresované školským systémom poukazujúce na to, že edukačná prax nedostatočne adekvátne podporuje učenie sa tých, ktorí predčasne ukončili školské vzdelávanie (in Maslo et al., 2013).

Nakoľko je systém ďalšieho vzdelávania dospelých schopný ponúkať alternatívu pre nevzdelaných a nezamestnaných? Do neformálneho vzdelávania dospelých vstupujú najčastejšie tí, ktorí, už vzdelanie majú, s cieľom prehlbovať svoju kvalifikáciu a upevňovať vlastné sociálne pozície (Kešelová, 2011). Naopak ľudia s najnižším stupňom vzdelania sa na ďalšom vzdelávaní zúčastňujú v najnižšej miere. Cameron (1987) v tejto súvislosti vidí riziká prehlbovania sociálnych nerovností, na nivelizáciu ktorých by práve systém vzdelávania dospelých mal prednostne reagovať. Obdobne kriticky sa vyjadruje Grummell (2007) keď tvrdí, že vývoj vzdelávacej politiky v posledných rokoch výrazne podlieha neoliberálnemu diskurzu, pričom systém vzdelávania dospelých sa následne prispôsobuje jeho ekonomickej a politickej logike. Kritické teórie vzdelávania vyzdvihujúce možnú emancipáciu slabších, vylúčených a utláčaných prostredníctvom vzdelávania sú v neoliberálnej atmosfére založenej na ekonomickej racionalite a individuálnej zodpovednosti vytláčané na okraj. Vo výsledku potom vzdelávanie dospelých slúži viac na upevňovanie moci a pozície disponovaných, úspešných, ktorých socio-kultúrne a socio-ekonomické pozadie dostatočne počas ich doterajšej vzdelanostnej dráhy vybavilo takými kvalitami ich potenciálu, že im ďalšie vzdelávanie sľubuje udržanie pozície a budovanie kariéry. V súčasnom celoeurópskom presadzovaní myšlienky rovnosti v prístupe k vzdelávaniu nanovo vystupujú do popredia otázky o skutočnej rovnosti príležitostí, keď koncept individuálnej zodpovednosti za investovanie do individuálneho rozvoja naráža na skutočnosť, že významná časť spoločnosti nie je ekonomicky aktívna, resp. nie je schopná z vlastných zdrojov dotovať svoje vzdelávanie (deti, starší ľudia, nezamestnaní) (Lynch, 2006). Teda emancipačný potenciál vzdelávania dospelých je obmedzovaný všeobecnou zameranosťou na individuálnu autonómiu, ekonomickú produktívnosť, efektívnosť, výkonnosť a spotrebu.

Systém vzdelávania dospelých (ďalšieho vzdelávania, školského vzdelávania dospelých) by však nemal rezignovať na funkciu nápravy nedostatkov predchádzajúcich stupňov vzdelávania. V čoraz viac polarizovanej spoločnosti by malo vzdelávanie dospelých reflektovať, adekvátne vzhľadom na svoju humanistickú tradíciu, na reálnu spoločenskú prax prostredníctvom posilňovania svojich sociálnych funkcií, pretože „úspešný prechod k ekonomike, ktorá umožní sociálny rozvoj a primeranú kvalitu života, musí doprevádzať uznanie sociálnych funkcií vzdelania a nutnosti celoživotného učenia“ (Tokárová 2002, s. 27). Vzdelávanie dospelých preto má aj významný integračný/inkluzívny charakter, keď

dostatočnou ponukou edukačných aktivít prispôsobených potrebám dospelého človeka môže prispievať k jeho plnohodnotnému fungovaniu v spoločnosti, k vyššej kvalite jeho života a podpore sociálnej kohézie.

2 ŠKOLSKÁ EDUKÁCIA DOSPELÝCH

Inštitucionalizovaná edukácia dospelých prebieha v systéme ďalšieho vzdelávania (formálne a neformálne vzdelávanie dospelých) a v subsystéme školskej pedagogiky a andragogiky. *Zákon č. 568/2009 Z. z. o celoživotnom vzdelávaní* ustanovuje podoby ďalšieho vzdelávania, ktoré nekopírujú model členenia na formálne, neformálne a informálne vzdelávanie (učenie sa) tak, ako sú zadefinované v *Memorande o celoživotnom vzdelávaní* (2000). Pre potreby identifikácie oblastí, v ktorých prebieha edukácia dospelých Rómov, budeme vychádzať z členenia, ktoré za formálne vzdelávanie považuje vzdelávaciu činnosť inštitúcií, ktoré sú určené na vzdelávanie a odbornú prípravu, a vedie k oficiálne uznávaným dokladom o nadobudnutí kvalifikácie (*Memorandum o celoživotnom vzdelávaní*, 2000). Preto k formálnemu vzdelávaniu dospelých možno zaradiť vzdelávanie, ktoré je súčasťou systému ďalšieho vzdelávania tak, ako ho vymedzuje *Zákon č. 568/2009 Z. z. o celoživotnom vzdelávaní* (ďalšie odborné vzdelávanie, rekvalifikačné vzdelávanie a kontinuálne vzdelávanie), ale aj vzdelávanie, ktoré vedie k získaniu uceleného stupňa vzdelania v samostatných vzdelávacích programoch na základných, stredných a vysokých školách v rámci sústavy učebných a študijných odborov (druhošancové vzdelávanie, ak sú doň zapojené osoby, ktorých vek je vyšší, než je pre získavanie daného stupňa vzdelania bežné). Všetky spomenuté druhy vzdelávania dospelých vedú k získaniu dokladu o absolvovaní vzdelávania alebo nadobudnutí stupňa vzdelania, preto ich možno považovať za formálne vzdelávanie.

Podľa *Zákona č. 568/2009 Z. z. o celoživotnom vzdelávaní* nemožno v systéme ďalšieho vzdelávania získať stupeň vzdelania. Znamená to, že druhošancové vzdelávanie nie je súčasťou ďalšieho vzdelávania, ale je plnohodnotnou súčasťou školského vzdelávania. Táto skutočnosť nás priamo odkazuje k *Zákonu č. 245/2008 Z. z. o výchove a vzdelávaní* (školský zákon) a k *Zákonu č. 131/2002 o vysokých školách*. Realizácia vzdelávania pre dospelých Rómov z marginalizovaných komunít vo formálnom vzdelávacom systéme (školskom) preto vychádza z ustanovení školského zákona, v ktorom sa termín druhošancové vzdelávanie nepoužíva. Ale v terminológii vzdelávacej politiky a v andragogike je pre túto oblasť edukácie dospelých pojem druhošancové vzdelávanie (second chance education), resp. vzdelávanie druhej šance dlhodobo ustáleným.

Druhošancové vzdelávanie je ukotvené vo filozofickom východisku, ktoré spočíva v tom, že bez ohľadu na príčiny vypadnutia zo vzdelávania (či už v dôsledku individuálneho zlyhania, štrukturálnych procesov alebo selektívnej funkcie vzdelávania) je správne a žiaduce poskytovať možnosť zvýšiť vzdelanostný status dospelých v neskoršom veku (Yogev 1997, in: Ross, Grey 2005). Má predstavovať alternatívny priestor, ktorému je na všetkých úrovniach a vo vzťahu ku všetkým aktérom (manažmentu, metodikom, učiteľom) vlastná snaha o nekopírovanie modelu vzdelávania, v ktorom boli potencionálni účastníci vzdelávania neúspešní. Praktický odraz tejto „misie“ druhošancového vzdelávania môžeme badať aj v rozlišovaní medzi tzv. večerným vzdelávaním (evening education) a druhošancovým vzdelávaním (second chance education) v gréckom edukačnom systéme. Druhá šanca je tu poskytovaná v dvoch formách. Večerné školy (ESs) ponúkajú rovnaké kurikulum a spôsob výučby ako v bežnom stredoškolskom vzdelávaní, len v inom čase. Naproti tomu, sú školy druhej šance (SCSs) špecificky zamerané, ponúkajú inovatívne formy a metódy výučby a ponúkajú aj poradenstvo pre študentov (Efstathiou, 2007). Autor vo svojej výskumnej štúdii prišiel k záverom, že školy druhej šance neponúkajú prostredie, ktoré by viac motivovalo učiacich sa v porovnaní s večernými školami. Napriek tomu, by sme v našom prostredí mali

cielene hľadať vhodný model pre vzdelávanie dospelých marginalizovaných Rómov, pretože v súčasnosti je školský systém pre nich uzavretý. Napokon vzdelávanie dospelých v subsystéme školskej pedagogiky a andragogiky, ako aj ďalšie (neformálne) vzdelávanie sledujú z pohľadu andragogického myslenia spoločné ciele – každý má mať možnosť aktívne sa podieľať na utváraní vlastného života prostredníctvom aktualizácie vlastného vzdelanostného statusu, zvyšovaním svojich kompetencií v akejkoľvek fáze života, nech sú príčiny jeho rozhodnutia akokoľvek rozmanité.

V našich podmienkach charakterizuje druhošancové vzdelávanie napr. Švec (2008b, s. 225) ako „príležitosť pre dospelých získať v pokračovacom, kontinuálnom cykle vzdelávania taký druh a stupeň vzdelania, ktoré sa normálne nadobúda v detstve alebo v mladosti počas počiatočného, iniciálneho cyklu vzdelávania...“. Ainsworth (2013) tvrdí, že druhošancové vzdelávanie možno typicky definovať podľa typu jeho účastníkov: zvyčajne ide o mladých ľudí, ktorí boli vytlačení z iniciálneho vzdelávania alebo z iných dôvodov školu neukončili. V štruktúre tejto skupiny potom môžeme identifikovať sociálne skupiny so spoločnými statusovými znakmi, ktoré sú formované životnými skúsenosťami spoločenských outsiderov. V slovenskej spoločnosti ide predovšetkým o významnú časť rómskej populácie, najmä z marginalizovaných komunít, ako aj o tradičnú cieľovú skupinu druhošancového vzdelávania – odsúdených vo výkone trestu odňatia slobody. Ainsworth (2013) označuje druhošancové vzdelávanie ako cestu pre dosiahnutie vyššieho vzdelania v neoliberálnej atmosfére založenej na individuálnej zodpovednosti. Naráža tým na motiváciu a zodpovednosť každého človeka za sebarozvoj, s čím sa v ideálnom prípade počíta najmä v profesijnej príprave a v záujmovom vzdelávaní dospelých.

O stave a vývoji druhošancového vzdelávania všeobecne i v jednotlivých krajinách je spracované pomerne veľké množstvo publikácií, ako aj výskumných správ a komparačných štúdií (napr. Raymond, 2008; Polidano et al., 2012; Kešelová 2011; Hanzelová et al. 2005 a i.). Zdrojom poznatkov o realizácii druhošancového vzdelávania sú aj výsledky analýz a výskumov v európskom priestore (napr. *Dospelí vo formálnom vzdelávaní*, 2011; *Second chance schools. The results of a european pilot project,* 2002, *Adult Education Survey*, 2011). Významné mapovanie prínosu formálneho vzdelávania (dospelých) pre napĺňanie idey celoživotného učenia bolo realizované prostredníctvom výskumného projektu LLL10 „Towards a Lifelong Learning Society in Europe: the Contribution of the Education System“. Do projektu bolo zapojených 13 európskych krajín prostredníctvom hlavných aktérov celoživotného vzdelávania.

Priamy odkaz na potrebu vytvárať pre Rómov (resp. členov sociálne vylúčených komunít) s chýbajúcim alebo nízkym stupňom vzdelania z marginalizovaných komunít možnosti na druhú šancu nadobudnúť vzdelanie je prítomný *v Stratégii Slovenskej republiky pre integráciu Rómov do roku 2020* (2011) v časti, ktorá je venovaná cieľom v oblasti zamestnanosti. Druhošancové vzdelávanie a všeobecne vzdelávanie dospelých je primárne spojené s pracovnými rolami dospelého človeka. V *Stratégii*... (2011, s. 33) je pri globálnom cieli „podporovať zvyšovanie zamestnateľnosti príslušníkov rómskych komunít“ zadefinované, že tento cieľ má byť dosahovaný okrem iného prostredníctvom „podpory zvyšovania vzdelanostnej úrovne a kvalifikačnej úrovne uchádzačov o zamestnanie z rómskych komunít, ktorí nemajú ukončené základné (ISCED 2) a stredné vzdelanie (ISCED 3) – podporovať druhošancové vzdelávanie“. Doposiaľ sme na Slovensku svedkami skôr masívnejšieho financovania rekvalifikácií prostredníctvom úradov práce, než investovania do zvyšovania stupňa vzdelania vo formálnom vzdelávaní dospelých. Naďalej je dlhodobá nezamestnanosť riešená parciálne v sektore práce, sociálnych vecí a rodiny ako otázka sociálnej odkázanosti a sociálneho vylúčenia, a nie v školskom sektore, ktorý by mal rozhodujúcim spôsobom

odpovedať na potrebu zvyšovania vzdelanostného statusu nízko kvalifikovaných skupín obyvateľstva.

3 DOSPELÍ RÓMOVIA Z MARGINALIZOVANÝCH KOMUNÍT AKO CIEĽOVÁ SKUPINA DRUHOŠANCOVÉHO VZDELÁVANIA

Cieľové skupiny druhošancového vzdelávania nie sú homogénne ani pred, ani po vstupe do vzdelávania druhej šance. Členovia týchto skupín ale majú spoločnú skúsenosť s neúspechom vo vzdelávaní, resp. spája ich viac alebo menej slobodné a vedomé rozhodnutie zanechať štúdium alebo v ňom nepokračovať. Nižší stupeň vzdelania je tradične spájaný s vyšším rizikom chudoby v dôsledku nezamestnanosti alebo nízko plateného zamestnania, s vyššou mierou kriminality, násilia a závislostí (ako aj iných patologických javov), s vyššou zraniteľnosťou a celkovo s vyšším rizikom sociálneho vylúčenia. Vzdelávanie dospelých má byť prirodzene spojené s ideami sociálnej rovnosti, rovnosti v prístupe k vzdelávaniu a uplatňovania práva na vzdelanie (Beneš, 2004). Preto sa má, podľa nášho názoru, andragogika výraznejšie orientovať na sociálne vylúčené skupiny obyvateľstva, na ktoré je druhošancové vzdelávanie primárne zamerané.

Ako veľkej skupiny dospelých členov rómskeho etnika sa potenciálne školské vzdelávanie druhej šance môže týkať? Vzhľadom k platnej antidiskriminačnej legislatíve a pokračujúcou nízkou mierou priznávania sa k rómskej národnosti, sme odkázaní na sociografické mapovania rómskych komunít. Dáta je tak možné čerpať z výskumu Filadelfiovej et al. (2012), ktorá výskumne dokladuje 18,4 % ľudí s neukončenou ZŠ a takmer 60 % obyvateľov rómskych osídlení s najvyšším vzdelaním základným. Tak ako pri iných ukazovateľoch aj pri stupni vzdelania platí, že sa zvyšuje so zvyšujúcou sa mierou integrovanosti komunity.

V regiónoch s dlhodobo vysokou úrovňou nezamestnanosti (viaceré okresy Košického, Banskobystrického a Prešovského kraja) žije vysoký počet ľudí s neukončeným vzdelaním. V regiónoch s najvyššou mierou nezamestnanosti je aj najvyššia miera sociálnej odkázanosti. Tieto skutočnosti dokazujú, že chudoba je na Slovensku nerovnomerne rozložená a navyše má aj výrazný etnický charakter. Predčasné ukončenie školskej dochádzky, nepokračovanie v štúdiu a absentujúce možnosti na dokončenie školy sú kľúčové faktory pri uvažovaní o príčinách toho, že hoci máme relatívne hustú sieť základných a stredných škôl, významná časť dospelej rómskej exkludovanej populácie sa vzdelávania nezúčastňuje. Školy by preto mali ponúkať cielene v týchto lokalitách možnosti vrátiť sa do školských lavíc. Finančné náklady by mali byť vyčlenené priamo na tento druh vzdelávania v rámci rozpočtov vyšších územných celkov. Následne je potom potrebná vhodná systematická podpora dospelých s cieľom prekonávať bariéry ich zapojenia sa do vzdelávania.

Bariéry a prekážky, ktoré ďalej rozvedieme, sa netýkajú len osobných rozhodnutí dospelých Rómov prameniacich z presvedčenia, že im vzdelanie aj tak na nič nebude, ale odkazujú najmä na štrukturálne faktory. Je nevyhnutné sa nimi výskumne zaoberať a v praxi zlepšovať podmienky na vtiahnutie týchto zraniteľných skupín späť do edukácie tak na úrovni školy ako aj decíznej sféry a ďalších aktérov.

Ďalším významným argumentom pre realizáciu druhošancového vzdelávania je skutočnosť, že (nielen) na Slovensku naďalej zamestnávatelia neakceptujú certifikáty z krátkodobých kurzov v neformálnom vzdelávaní ako dostatočnú kvalifikáciu pre výkon určitej profesie, hoci zamestnávatelia sú práve najväčším poskytovateľom neformálneho vzdelávania (Eurostat, 2011). Absolvovanie programu ďalšieho vzdelávania negarantuje lepšiu zamestnateľnosť ani platový rast (Kešelová 2013). Podľa údajov ÚIPŠ (Ústav informácií a prognóz školstva) si len necelých 0,5 % dospelej populácie dokončuje stupeň vzdelania na úrovni maturitnej skúšky v rámci školského vzdelávania. Pričom menej ako polovici z nich sa

takúto úroveň vzdelávania aj podarí dosiahnuť (4511 osôb v roku 2010) (*Stratégia celoživotného vzdelávania*, 2011). Podľa správy Dospelí vo formálnom vzdelávaní (2011) je účasť nekvalifikovaných dospelých na formálnom vzdelávaní a systéme odbornej prípravy na úrovni iba okolo 2 %. Kešelová (2013) vo svojej analýze čerpala z údajov Eurostatu, podľa ktorých bola v roku 2011 celková miera účasti dospelých vo formálnom vzdelávaní vo veku 25 až 64 rokov 5,8 %, v neformálnom vzdelávaní Slovensko dosahovalo účasť na úrovni EÚ. Nízka je predovšetkým účasť dospelých na aktivitách ďalšieho vzdelávania s dĺžkou trvania minimálne 4 týždne. Podľa údajov z Eurostatu (2015) sa na Slovensku v roku 2014 aktivít ďalšieho vzdelávania zúčastnili 3,00 % populácie vo veku 25 – 64 rokov. Pre porovnanie, v Dánsku to bolo 31,7 %.

Krátkodobé rekvalifikačné a motivačné kurzy, výcviky a školenia sú potrebným doplnkom prehlbujúcim kvalifikáciu či dotvárajúcim osobnostné kompetencie, ale neriešia existenčné problémy sociálne vylúčených skupín obyvateľstva efektívne v nadväznosti na ich uplatnenie sa na trhu práce. Je teda otázne, prečo školský systém neponúka systémové riešenie nízkeho vzdelanostného statusu tej časti populácie, ktorá v ňom bola neúspešná. Iste je dôvodov viacero tak na strane školských inštitúcií, systémových riešení vo vzdelávacej politike a na strane samotných (ne)učiacich sa. Podľa výskumu Kešelovej (2011) len jedna tretina stredných škôl realizovala v ostatných dvoch rokoch druhošancové vzdelávanie zamerané na zvýšenie stupňa vzdelania.

3.1 Bariéry účasti marginalizovaných na vzdelávaní

Pri hľadaní príčin, prečo sa dospelí, špecificky s chýbajúcim odborným vzdelaním, nezúčastňujú vzdelávania, je potrebné vychádzať z bariér a prekážok účasti dospelých na vzdelávaní, ktoré sú v andragogike dostatočne skúmané. Rozhodnutie participovať ako aj rozhodnutie neparticipovať na vzdelávaní je sociálne konštruované a podlieha vplyvu mnohých faktorov. Prekážky a bariéry v prístupe k vzdelávaniu dospelých sú už tradičnou výskumnou témou. K dispozícii je pomerne veľké množstvo súhrnných správ a pôvodných výskumných štúdií, ktoré okrem iného prinášajú informácie o miere a dôvodoch účasti a neúčasti dospelých vo vzdelávaní v národnom i nadnárodnom porovnávaní (napr. Cross 1981; Malhotra et al. 2007; Rabušicová et al., 2008; Čiháček, 2006 a i.).

Situačné bariéry[1] účasti na vzdelávaní môžu byť artikulované aj ako spôsob prekrývania dispozičných prekážok (obáv) z vlastného učenia sa. Mnohí dospelí sú napríklad presvedčení, že vzdelávanie nezvládnu, pretože v škole sa zle učili, alebo že sú už na učenie príliš starí. Dispozičné bariéry[2] dominujú medzi staršími dospelými, dospelými s nízkym stupňom vzdelania a dospelými s robotníckou profesiou (Chisolm et al., 2004).

K hlavným bariéram účasti dospelých na vzdelávaní (pre účely tohto textu veľmi zjednodušene, keďže bariéry sú komplexne skúmané, kategorizované do tematických oblastí) patria *finančné náklady* spojené s úhradou vzdelávacích aktivít (kurzov, školení) a cestovných nákladov. V prípade nákladov na ďalšie vzdelávanie (kvalifikačné, rekvalifikačné, záujmové) si kvalifikovaní zamestnaní dospelí pokrývajú tieto náklady z vlastných zdrojov alebo zdrojov zamestnávateľa. Nezamestnaní môžu požiadať o preplatenie nákladov na absolvovanie kurzu ďalšieho vzdelávania úrad práce (program RE-PAS). Na Slovensku ale chýba systémový prvok kompletného stredoškolského štúdia hradeného z verejných zdrojov pre tých, ktorí by sa v dospelosti rozhodli získať vzdelanie vo formálnom vzdelávaní. Problematický je tiež

[1] Situačné bariéry sa viažu k životnej situácii jednotlivca a zahŕňajú chudobu, násilie, životné podmienky a podporu rodinného prostredia (Flynn et al., 2011, s. 44).

[2] Dispozičné bariéry zahrňujú predchádzajúce skúsenosti s učením či osobné, akademické a k povolaniu sa vzťahujúce motívy (Flynn et al., 2011, s. 45).

prístup marginalizovaných Rómov k digitálnym technológiám a internetu, ktoré okrem finančných nákladov môžu najmä pre staršiu generáciu (nielen Rómov) znamenať významnú prekážku vo vzdelávaní a učení sa. Otázne sú tiež učebné kompetencie ľudí s najnižším vzdelanostným statusom.

Oblasť prekážok súvisiacich s *rodinnými povinnosťami* sa naďalej ukazuje ako dôležitý faktor, ktorý znemožňuje zvýšenú účasť dospelých na vzdelávaní. U dospelých marginalizovaných Rómov, aj keď nemáme potrebné dáta, by pravdepodobne tieto prekážky zohrávali dôležitú úlohu najmä v prípade rómskych žien. V súvislosti s tradičnou deľbou práce v rómskych rodinách a s prevládajúcim (výchovne konštruovaným) sebaponímaním ženy ako matky a manželky).

Ďalšou prekážkou účasti na vzdelávaní môže byť aj nízka *úroveň informovanosti* o ponúkaných vzdelávacích aktivitách. Rómovia/Rómky evidovaní ako nezamestnaní na úrade práce sa dozvedajú o vzdelávacích ponukách pravdepodobne najčastejšie od odborných referentiek/referentov, ako aj prostredníctvom portálu istp.sk. Portál okrem aktuálnych voľných pracovných pozícií a súhrnných kritérií pre výkon konkrétnych povolaní ponúka aj aktuálne informácie o práve prebiehajúcich vzdelávacích aktivitách (kurzoch, školeniach). Otázna je schopnosť a motivácia dlhodobo nezamestnaného človeka s nízkym stupňom vzdelania a úroveň jeho IKT kompetencií na to, aby na portáli chcel a vedel vyhľadávať informácie.

Motiváciu dospelých Rómov k participácii na vzdelávaní sa (formálnom, neformálnom) ovplyvňujú aj ich vlastné skúsenosti so vzdelávacím systémom, v ktorom neboli úspešní. I samotné školské prostredie môže u tých, ktorí majú negatívne skúsenosti so školou, vyvolávať nepríjemné spomienky. Mnohí neveria, že prípadné zvýšenie vzdelania môže ovplyvniť ich život, ďalší (najmä ženy) vzhľadom na množstvo povinností v rodine ani neuvažujú týmto smerom a ďalší zasa vzdelanie pre výkon prevažne nízko kvalifikovanej práce, nepotrebujú. Hurrle et al. (2012) konštatovali, že z dlhodobého hľadiska je prínos vzdelávacích kurzov realizovaných v rámci rôznych projektov minimálny. Dotazovaní Rómovia/Rómky hodnotili prínos týchto aktivít ako problematický, bez reálneho reálny dopadu na svoju životnú situáciu. Táto skutočnosť ich utvrdzuje v presvedčení, že absolvovanie kurzov a získanie certifikátov im nedokáže pomôcť uplatniť sa na trhu práce.

Rómovia/Rómky z marginalizovaných komunít očakávajú konkrétny prínos realizovaného vzdelávania v podobe plateného zamestnania (napr. Šlosár, 2010), hoci niektorí hodnotia samotné vzdelávacie aktivity ako prínosné. Zo skupiny Rómov/Rómiek, ktorí sa zúčastňujú vzdelávania, viacerí upozorňovali na „motiváciu“ k ich dôslednej participácii na vzdelávaní, ktorú z pozície sily vynucovali tak úrady práce – pod hrozbou vyradenia z evidencie (v prípade vzdelávania a odbornej prípravy), ako aj lokálne autority (napr. pod hrozbou vyradenia z aktivačných prác) (Hurrle et al., 2012).

Negatívnu úlohu v prístupe k ďalšiemu vzdelávaniu naďalej zohráva aj *etnická príslušnosť*, celková ponuka pracovných miest v regióne i ďalšie individuálne a štrukturálne príčiny. Potvrdzujú to aj Rubenson a Desjardins (2009), ktorí zistili, že najväčšie rozdiely medzi škandinávskymi a ostatnými krajinami nie sú v charaktere bariér, ale v možnostiach ich prekonávania. Tie nie sú plne v rukách indivíduí a odkazujú na vyššiu mieru zodpovednosti lokálnych a národných autorít za vytváranie podmienok na zvyšovanie miery účasti dospelých, nielen z exkludovaného prostredia, v systéme vzdelávania dospelých. Autori odkazujú na možnosti a potrebu opatrení zo strany štátu, ktorý môže formovať široké štrukturálne podmienky týkajúce sa účasti dospelých na vzdelávaní a konštruovať cielené politické opatrenia zamerané na prekonávanie tak situačných, ako aj dispozičných prekážok participácie dospelých na vzdelávaní. Bez jasnej koncepčnej a finančnej podpory štátu, resp. v

našich podmienkach vyšších územných celkov, bez dostatočne artikulovanej, prístupnej a otvorenej ponuky vzdelávacích programov pre dospelých na strane škôl, ťažko možno očakávať zvýšenie vzdelanostného statusu dospelých Rómov z marginalizovaných komunít.

3.2 Perspektívy zvyšovania participácie na vzdelávaní

Zvýšenie účasti dospelých Rómov/Rómiek z marginalizovaných komunít vo formálnom (i neformálnom) vzdelávaní sa nemôže zaobísť bez analýzy aktuálnych a perspektívnych vzdelávacích potrieb účastníkov vzdelávania. Vedieť, čo Rómovia naozaj potrebujú a ako je to možné zladiť s potrebami najmä lokálneho trhu práce, je kľúčové pre projektovanie vzdelávacích aktivít. Vzdelávanie musí zreteľne a preukázateľne nadväzovať na uplatnenie sa na trhu práce, v opačnom prípade budú v našej praxi naďalej prevažovať techniky negatívnej motivácie spočívajúce vo využívaní úradnej moci tak pri aktivácii nezamestnaných Rómov vo vzťahu k trhu práce, ako aj v oblasti ich motivácie k ďalšiemu vzdelávaniu.

Vzdelávacie aktivity, ktoré samotní Rómovia vnímajú ako zbytočné, ktoré nie je možné zúročiť na trhu práce a ktoré nevedú k dlhodobo efektívnym procesom zmocňovania utláčaných, nás vedú ku konštatovaniu, že v procese sociálnej inklúzie Rómov je nevyhnutné zabezpečiť reálnu možnosť dokončiť školu v akomkoľvek veku bez ohľadu na socio-ekonomický status dospelého. Ako inšpiratívny možno vnímať systém formálneho vzdelávania dospelých v Belgicku, ktorý je rozdelený na úrovne prispôsobené úrovni a potrebám učiacich sa (Vermeersch, Vandenbroucke, 2009). Existujúce Centrá pre vzdelávanie dospelých sú orientované najmä na profesijné a záujmové vzdelávanie, zatiaľ čo Centrá pre základné vzdelávanie dospelých ponúkajú nekvalifikovaným a polokvalifikovaným dospelým nadobudnutie kompetencií, ktoré sa im nepodarilo získať v primárnom a sekundárnom vzdelávaní (základné a kľúčové zručnosti, postoje k učeniu, základná a funkčná gramotnosť). Absolvovanie programu v Centrách pre základné vzdelávanie dospelých je bezplatné a umožňuje potom dospelým pokračovať v programoch druhošancového vzdelávania v Centrách pre vzdelávanie dospelých. Tento dvojúrovňový model sa nám javí ako podnetný pre možnú odbornú diskusiu na Slovensku.

Školské vzdelávanie dospelých Rómov, v ktorom boli v iniciálnej fáze neúspešní, by malo byť realizované na iných princípoch ako vzdelávanie detí a mládeže. Domnievame sa, že kompetencie, ktoré je možné nadobudnúť a rozvíjať prostredníctvom absolvovania krátkodobých kurzov ďalšieho vzdelávania, sú v porovnaní s výsledkami dlhodobého školovania nepostačujúce. Neumožňujú rozvoj takých kompetencií (metakompetencie), ktoré je možné flexibilne uplatňovať na dynamickom trhu práce.

Použitá literatura

1. *Adult education survey*. Luxembourg: European Commission, Eurostat, 2011. Dostupné z: http://ec.europa.eu/eurostat/web/microdata/adult-education-survey
2. AINSWORTH, J. *Sociology of Education: An A-to-Z Guide* [online]. SAGE Publications, 2013. [cit. 2017-11-02]. Dostupné z: http://knowledge.sagepub.com /view/sociology-of-education/SAGE.xml
3. BENEŠ, M. Možnosti práce s cílovými skupinami v podmínkach dnešní ČR. In: M. MACHALOVÁ a V. PRUSÁKOVÁ, eds. *Získavanie nových cieľových skupín vo vzdelávaní dospelých: zborník.* Bratislava: Katedra andragogiky FF UK v Bratislave, Gerlach Print, spol. s.r.o., 2004, s. 22-26. ISBN 80-89142-04-4.
4. CAMERON, C. Adult education as a force toward social equity. In: *Adult Education Quarterly*. Vol. 37, pp. 173-177, 1987. DOI: 10.1177/0001848187037003005.
5. CROSS, K. P.. Adults as learners: Increasing participation and facilitating learning. San Francisco: Jossey-Bass, 1981.

6. ČIHÁČEK, V. Bariéry účasti dospělých v kurzech celoživotního vzdělávání: „peníze jsou až na prvním místě“. In: *Sborník prací Filozofické fakulty brněnské univerzity, Studia Paedagogica*, U 11. Brno: Masarykova univerzita, 2006, s. 119-131. ISSN 1211-6971.
7. *Dospelí vo formálnom vzdelávaní. Politika a prax v Európe,* 2011 [online]. [cit. 2017-11-05]. Dostupné z: http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/128SK.pdf
8. EFSTATHIOU, I., 2007. Motivating students in second chance education in Greece: The case of an evening school and a second chance school [online]. In: *3rd Hellenic Observatory PhD Symposium on Contemporary Greece, 14. – 15. 6. 2007.* London: Institute of Education. Dostupné z: http://www.lse.ac.uk/europeanInstitute/research/hellenicObservatory/pdf/3rd_Symposium/PAPERS/EFSTATHIOU_IOANNIS.pdf
9. FILADELFIOVÁ, J. et al. *Správa o životných podmienkach rómskych domácností na Slovensku 2010*. Bratislava: Regionálne centrum Rozvojového programu OSN pre Európu a Spoločenstvo nezávislých štátov, 2012. ISBN 978-80-89263-10-3.
10. FLYNN, S. et al. Barriers to Education for the Marginalized Adult Learner. *Alberta Journal of Educational Research*. Vol. 57, no. 1, pp. 43-58, 2011.
11. GRUMMELL, B. The ‘second chance’ myth: equality of opportunity in Irish adult education policies. *British Journal of Educational Studies.* Vol. 55, no. 2, pp. 182-201, 2007. doi:10.1111/j.1467-8527.2007.00374.x
12. HANZELOVÁ, E. et al. *Monitorovacia správa pilotného projektu „Dokončenie základnej školy”.* Bratislava: Stredisko pre štúdium práce a rodiny, 2005.
13. HOLFORD, J. & MLECZKO, A. Lifelong learning in the formal education system. In: SAAR, E. et al. (eds.). *Lifelong Learning in Europe. National Patterns and Challenges.* Northampton: Edward Elgar, 2013, pp. 2-21. ISBN 978-0-85793-736-0.
14. HURRLE, J. et al. *Uncertain impact: Have the Roma in Slovakia benefitted from the European Social Fund? Findings from an Analysis of ESF Employment and Social Inclusion Projects in the 2007 – 2013 Programming Period*. Bratislava: UNDP, 2012. ISBN 978-80-89263-13-4.
15. CHISOLM, L. et al. *Lifelong learning: Citizens’ views in close-up. Findings from a dedicated Eurobarometer survey* [online]. Luxembourg: Office for official Publications for the European Communities, 2004 [cit. 2016-06-03]. ISBN 92-896-0309-7. Dostupné z: www.cedefop.europa.eu/files/4038_en.pdf
16. KEŠELOVÁ, D. *Celoživotné vzdelávanie a aktívne opatrenia na trhu práce v kontexte systému flexiistoty: možnosti posilnenia ich vzájomných väzieb. Záverečná správa VÚ č. 2163.* Bratislava: Inštitút pre výskum práce a rodiny, 2013.
17. KEŠELOVÁ, D. *Národné fórum ako nástroj zlepšenia Stratégie celoživotného vzdelávania. Výskumná správa* [online]. Bratislava: Start, n. o., 2011. [cit. 2017-10-10]. Dostupné z: http://web.saaic.sk/naforfil/modules/dokumenty/Prieskum_NAFORFIL_sprava_final.pdf
18. LYNCH, K. Neo-liberalism and Marketisation: the implications for higher education. *European Educational Research Journal*. Vol. 5, no. 1, pp. 1–17, 2006.
19. MALHOTRA, N. K. et al. Factor structure of deterrents to adult participation in higher education. In: *Journal of College Teaching and Learning* [online]. Vol. 4, No. 12, pp. 81–90, 2007. ISSN 2157-894X [cit. 2016-10-01]. Dostupné z: http://www.cluteinstitute-onlinejournals.com/PDFs/719.pdf
20. MASLO, I. et al. Early school leavers’ engagement in learning and quality of second chance education. Conference paper. *Conference: Creativity and Innovation in Educational Research: ECER 2013*, Turkey: Istanbul, Vol. 9 [cit. 2015-06-22]. Dostupné z: http://www.eera-ecer.de/ecer-Programmes/conference/8/contribution/ 21860/

21. *Memorandum o celoživotnom vzdelávaní* [online], 2000. Brusel: Komisia európskych spoločenstiev [cit. 2014-02-06]. Dostupné z: https://www.minedu.sk/data/files/2607_2000_memorandum_o_celozivotnom_vzdelavani.pdf
22. POLIDANO, C. et al. *A Second Chance at Education for Early School Leavers*. Melbourne: University of Melbourne, Melbourne Institute Working Paper No. 14/12, 2012. ISBN 978-0-7340-4274-3.
23. RABUŠICOVÁ, M. et al. Motivace a bariéry ve vzdělávání dospělých. In: M. RABUŠICOVÁ a L. RABUŠIC, eds. *O vzdělávání dospělých v České republice*. 1. vyd. Brno: Masarykova univerzita, 2008, s. 97-112. ISBN 978-80-210-4779-2.
24. RAYMOND, M. *High school dropouts returning to schol* [online]. Ottawa: Culture, Tourism and the Centre for Education Statistics Research papers, 2008 [cit. 2014-09-01]. Dostupné z: http://www.statcan.gc.ca/pub/81-595-m/81-595-m2008055-eng.pdf
25. RUBENSON, K. & R. DESJARDINS. The impact of welfare state regimes on barriers to participation in adult education: a bounded agency model. *Adult Education Quarterly*. Vol. 59, No. 3, pp. 187-207, 2009. ISSN 1552-3047.
26. *Second chance schools. The results of a european pilot project*, [online]. Brussels: European Commission, 2002 [cit. 2013-05-16]. Dostupné z: http://ec.europa.eu/education/archive/2chance/repcom_en.pdf
27. *Stratégia Slovenskej republiky pre integráciu Rómov do roku 2020* [online]. Bratislava: Úrad Vlády SR, 2011 [cit. 2014-07-29]. Dostupné z: http://www.romovia.vlada.gov.sk/data/files/8477.pdf
28. ŠLOSÁR, D. *Edukácia Rómov.* Košice: Košický samosprávny kraj, 2010. ISBN 978-80970137-6-9.
29. ŠVEC, Š. *Anglicko-slovenský lexikón pedagogiky a andragogiky*. Bratislava: Iris, 2008. ISBN 978-80-89256-21-1.
30. TOKÁROVÁ, A. Globalizovaný svet, kvalita života a vzdelanie. In: V. Frk, výkonný redaktor. *Kvalita života a ľudské práva v kontextoch sociálnej práce a vzdelávania dospelých: zborník príspevkov z vedeckej konferencie s medzi-národnou účasťou, 2.-3. apríla 2001 v Prešove.* Prešov: FF PU, s. 22-30, 2002. ISBN 80-8068-088-4.
31. VERMEERSCH, L. & VANDENBROUCKE, A. *The access of adults to formal and non-formal adult education Country report: Belgium (Flemish Community)* [online]. LLL2010 project, Subproject 5. Leuven: K.U.Leuven (University of Leuven) - Higher Institute for Labour Studies, 2009. Dostupné z: https://www.dcu.ie/sites/default/files/edc/pdf/belgiumsp5.pdf
32. YOGEV, A. Second chance education and alternative routes. In: L. SAHA, ed. *International Encyclopedia of the Sociology of Education*. New York: Pergamon, 1997. In: ROSS, S. & J. GRAY. Transitions and Re-engagement through Second Chance Education [online]. In: *Australian Educational Researcher*. Vol. 32, No 3, p. 114, 2005. [cit. 2014-02-04]. ISSN 0311-6999. Dostupné z: http://files.eric.ed.gov/fulltext/EJ743509.pdfhttp://files.eric.ed.gov/fulltext/EJ743509.pdf
33. *Zákon č. 131/2002 o vysokých školách*
34. *Zákon č. 245/2008 o výchove a vzdelávaní*
35. *Zákon č. 568/2009 Z. z. o celoživotnom vzdelávaní*

Kontaktní údaje

Mgr. Silvia Lukáčová, PhD.
Prešovská univerzita v Prešove, Fakulta humanitných a prírodných vied
17. Novembra 1, 080 01 Prešov
Tel: +421 51 7570337
email: silvia.lukacova@unipo.sk

MOŽNOSTI SÚČASNEJ ANTROPOLÓGIE

POSSIBILITIES OF CONTEMPORARY ANTHROPOLOGY

Henrieta Gergelová

Abstrakt

Príspevok sa zaoberá možnosťami súčasnej antropológie, jej prístupom k štúdiu spoločenských javov a niektorými problémami antropológie. Cieľom príspevku je poukázať na prístupy v antropológií a na niektoré jej nedostatky. Práca sa dotýka nielen najčastejšie používaných konceptov v antropológií, ale hlavne aktuálnej problematiky a taktiež hraníc disciplíny.

Kľúčové slová: *antropológia, prístupy, súčasnosť*

Abstract

The paper deals with the possibilities of contemporary anthropology, its approach to the study of social phenomena and some problems of anthropology. The aim of the paper is to point out approaches to anthropology and some of its shortcomings. The work deals not only with the most commonly used concepts in anthropology, but also with the current issues as well as the boundaries of the discipline.

Key words: *anthropology, approaches, present*

1 ÚVOD

Tak ako aj v iných disciplínach, aj v antropológií sa menili prístupy k štúdiu. Nielen prístupy, ale aj predmet štúdia sa prispôsobil súčasnému svetu. Od evolučných teórií, difúzionizmu, konfiguracionizmu, cez funkcionalizmus sa presúvala k štrukturálnej, psychologickej a kognitívnej antropológií, symbolizmu a postmoderným štúdiám. Bol by to omyl chápať tento posun v štúdiu antropológie lineárne alebo dokonca predpokladať, že smeruje k lepšiemu a neustále sa rozvíja. Vo svojej práci sa zameriam na súčasné problémy v antropológií a možnosť jej využitia v dnešnom svete. Od „klasických" predmetov štúdia akými boli rodina, manželstvo, náboženstvo, rituál prešla k štúdiu nacionalizmu, mestu, politických systémov, vplyvu globalizácie na spoločenské javy a podobne. Vzniklo množstvo subdisciplín antropológie, ktoré sa od seba líšia, nemajú nič spoločné a nepodliehajú jednej teórií. Určite by sa dalo veľa písať aj o vplyve mnohých „veľkých" teórií na antropológiu, ktoré ju ovplyvnili, avšak tomuto fenoménu sa nebudem venovať bližšie. Téma posunu v antropologickom myslení je nepochybne dôležitá a podľa môjho názoru aj aktuálna. Cieľom mojej práce je poukázať na možnosti súčasnej antropológie, reflektovať tie problémy s ktorými som sa stretla, a ktoré považujem za rušivé v antropológií. V práci vytyčujem len niekoľko konkrétnych problémov.

2 PRÍSTUPY

Antropológia podobne, ako aj iné disciplíny skúmala krajiny tretieho sveta. Podľa Geertza (2000) takéto štúdium nebolo vždy ľahké a vyskytli sa mnohé nepríjemnosti, ktoré spôsobili, že v antropológií sa začali kombinovať prístupy. Tieto novo vytvorené prístupy pozitívne ovplyvnili antropológiu. Hlavne spochybnili intelektuálnu a metodologickú sebestačnosť disciplíny. Geertz označuje dovtedajší izolovaný prístup za „*nepriateľa všeobecnej vedy o spoločnosti*" (2000: 363). Naďalej už nie je možné chápať študovanú spoločnosť izolovane.

Teraz je zameranie antropológie rozšírené o spoluprácu s inými vednými disciplínami. Geertz (2000) uvádza, že sa obnovil záujem o vysvetľovanie fungovania tradičných štátov. Tento záujem sa odzrkadlil v snahe vytvoriť všeobecnú politickú vedu o prírodných spoločenstvách. Antropológovia sa v snahe charakterizovať tradičné spoločenstvá inšpirovali mnohými prístupmi. Konštatuje, že antropológovia sa ocitli v niečom omnoho rozsiahlejšom a pri štúdiu spoločností narazili na hranice vlastnej disciplíny, museli čeliť otázke čo môžu ako antropológovia poskytnúť. Odpoveďou na otázku, čo môžu priniesť a čím sa líšia od iných disciplín sú samozrejme dáta, ktoré majú spochybniť vypracovanú sociologickú teóriu. Problémom však môže byť, že samotné dáta a z nich vytvorená etnografia sú limitované. Prijať fakt, že antropológia spochybňuje sociologickú teóriu „*znamená zredukovať antropológiu na akúsi potmehútsku etnografiu, schopnú, ako nejaký cenzor, nesúhlasiť s intelektuálnymi konštrukciami, ale nie vytvoriť alebo napríklad len pochopiť ktorúkoľvek z nich*“ (Geertz, 2000: 366, 367).
Základné antropologické prístupy pri charakterizovaní spoločností, alebo skúmaných akýchkoľvek fenoménov by mali byť teda nasledovné „*diskutovať o zvláštnom prípade zo vzdialenej zeme; a vyvodiť z tohto prípadu určité faktografické i metodologické závery, ktoré budú dosahovať ďalej, než čo môže akýkoľvek taký izolovaný príklad vôbec dokázať*“ (Geertz, 2000: 367). Podľa môjho názoru je určite potrebné pri akomkoľvek objasňovaní spoločenských javov siahnuť po širších konceptoch, ako len popísať významovosť, či jednoduchú charakteristiku bez zasadenia do širších súvislostí. Na jednej strane kritika sociologických teórií, na druhej strane obmedzenie etnografie, ktorá sama o sebe nemôže zovšeobecňovať, privádza Geertza k snahe nájsť správny postoj antropológie k charakterizovaniu spoločenstiev. Dôležitý poznatok naznačuje, že antropológia by mala oddeľovať kultúrne túžby tradičných štátov od sociálnych inštitúcií, ktorými sa realizujú často krát iné než kultúrne túžby. S týmito podmienkami oddeľovania dvoch odlišných skutočností môžem len súhlasiť. Aké prístupy využívať je stále veľmi problematické zodpovedať.

2.1 Štúdium tradičných spoločenstiev a chápanie vývoja

Potrebnou metódou, ktorú uvádza Geertz je vzrast sociologického realizmu. Pre pochopenie vývoja „*prestáva byť akýsi retrospektívny ideálny typ, model, konštruovaný tak, aby predstavoval to, čo jeho autor považuje za najzaujímavejšie rysy prítomnosti, a stáva sa ním historická realita zakorenené vo svojom vlastnom čase a priestore, z toho vyrastajú skutočnosti sveta, nie iba z kníh*“ (Geertz, 2000: 374). Dôležitým poznatkom je, že sociologický realizmus poskytuje odpoveď na otázku, aké sú vzťahy medzi novými štátmi a tradičnými štátmi. Tento prístup ignoruje veľmi rozšírené a podľa Geertzovho názoru zavádzajúce predpoklady, že nové štáty sú zajaté vo svojej histórií, alebo predpoklad, že štátom sa podarilo zbaviť sa minulosti a nie sú nikoho dlžníci. Samozrejme zmena v celkovom chápaní štúdia antropológie, predmetu antropológie je pre jej vedecké prínosy veľmi dôležitá. V antropológií môže byť problém s lineárnym chápaním dejín hlavne pretože dochádza k oddeľovaniu moderných od prírodných a snaha charakterizovať prírodné ako predchádzajúci stupeň moderného. Takáto by antropológia rozhodne nemala byť. Podľa Fergusona (1997) v antropológií spočiatku prevládali evolučné teórie. Boli založené na predpokladoch, že domorodci prírodných spoločenstiev sú „iní“ ľudia, a neskôr vznikla vízia ľudskej jednoty, ktorá bola prezentovaná Tylorom. Evolučné teórie priniesli postoj, že každá spoločnosť sa vyvíja a je v inom štádiu svojho vývoju, preto existujú rozdiely. Táto etnocentrická teória bola vyvrátená. Neskôr sa presadila teória Boasa, ktorá reprezentovala relativizmus. Podľa mňa sa zmena prístupov síce zbavila názorov, že spoločnosť sa vyvíja dopredu a v súčasnosti a už tieto teórie nepoužívajú, avšak v antropológií je stále prítomné akési rozdeľovanie spoločností, na čo poukazuje aj Ferguson. Podľa Fergusona (1997) hoci sme sa zbavili evolučného prístupu, stále sa študujú iné spoločenstvá ako „menej rozvinuté“.

Kritizuje tiež prístup Lévi-Straussa, pretože aj v jeho chápaní je taktiež prítomný rozdiel medzi tradičným a moderným. V tomto smere je zaujímavý aj prístup Geertza, ktorý uvádzam v nasledujúcej časti.

Podoba (2003) uvádza, že problémom vo vede je nezáujem o nové prístupy. Problémom s prístupom Geertza je v našej antropológií hneď hlavne to, že *„...ani tento vývoj k nám ešte nedorazil, resp. k nám nedorazili ani tie teoreticko- metodologické východiská a paradigmy, na zničujúcej kritike ktorých na prelome šesťdesiatych a sedemdesiatych rokov postavil svoju paradigmu, a rozvíjaním/ kritikou ktorej vznikli ďalšie paradigmy jeho epigónov/kritikov, ktoré sú dnes už predmetom kritiky ďalších nastupujúcich generácií sociálnych vedcov*" (Podoba, 2003: 78).

Geertzov prístup k štúdiu a argument je , že „*oddeľovaním, pretože každá etnografická štúdia skutočných tradičných štátov musí nevyhnutne oddeľovať, ambície vládcov, ideí a ideálov, ktoré ju vedú k nejakému završujúcemu cieľu, od sociálnych nástrojov, ich prostredníctvom sa tieto ciele dosahujú, prispieva antropológia k uvedomeniu si toho, že v tradičných štátoch, rovnako ako v moderných, nie je oblasť vplyv politika úplne to isté ako pevné držanie moci*" (2000: 374, 375). Prístup „oddeľovania" môže pomôcť odhaliť aké sú v skutočnosti tradičné štáty.

Podľa Geertza tento prístup umožňuje tiež „*rozlíšiť ideologický príspevok k súčasnému stavu kultúrnych tradícií, ktorých je dedičom, od organizačného príspevku systému vlády, ktorá ho predchádzala, a vidieť, že to prvé, ideologický príspevok, je až na výnimky, omnoho významnejší než to druhé*" (2000: 375). Vysvetľuje, že pre pochopenie nejakej kultúry, či štátu je dôležité oddeľovať ideológiu od organizácie spoločnosti. Súčasná ideológia je rovnako podstatná ako tá predošlá. Jej úlohou je zabezpečiť politickú činnosť. Ideológia je niečo ako obraz, ktorý uchopuje, teória, ktorá poskytuje odpovede a je tiež štandardom. Tvrdí, že súčasná ideológia je nielen modernejšou verziou minulej ideológie, ale bola ovplyvnená aj inými faktormi.

3 IDEOÓGIA V ANTROPOLÓGIÍ

Ďalším z problémov súčasnej antropológie je pojem ideológia a narábanie s ňou. Geertz uvádza, že pojem ideológia je taktiež zideologizovaný. V minulosti sa ideológiou rozumel politický návrh, ktorý mohol byť intelektualistický a nepraktický. Teraz sa pod týmto pojmom rozumie „*integrovaný súbor tvrdení, teórií a cieľov, ktoré tvoria politicko-sociálny program, často sprevádzaný násilnou propagandou...*" (2000: 219).

V niektorých prácach sa tento pojem „ideológia" používa neutrálne alebo je aspoň snaha používať ho neutrálne, ale výsledok tomu nenaznačuje. „*Ja mám sociálnu filozofiu, ty máš politické názory, on má ideológiu*" (Geertz, 2000: 219) je výrok, ktorý dokonale opisuje, že existuje snaha vyhnúť sa ideológií a oddeliť ju od sociálnej vedy. Ideológia je chápaná negatívne, chápe sa ako niečo pochybné čo by nemalo ovplyvňovať našu myseľ. Človek, ktorý prepadne ideológií žije v klamstve. Ideológia bola psychologicky znehodnotená pod tlakom emócií. Je náročné očistiť ju na neutrálny pojem. V sociálnych vedách sa to ešte nepodarilo. Používať termín ideológia v negatívnom zmysle potom však znamená, že nemôžeme hovoriť o ideológií podnikateľov, lekárov a podobne. Čo predstavuje problém pre pri charakterizovaní mnohých spoločenských javov.

Ideológia a veda sú odlišné, avšak niečím sú prepojené. „*Ideológie prenášajú empirické tvrdenia o stave a smerovaní spoločnosti, ktorá je predmetom vedeckého hodnotenia...*" (Geertz, 2000: 262). Veda má hlavne porozumieť ideológií, ako vzniká a funguje a taktiež kritizovať ideológiu. Keď existuje vedecká analýza v sociálnych vedách, je to istá kontrola proti ideológiám a extrémizmu. Okrem tejto kontroly, existuje aj konkurenčné ideológie „*formulované inými mocnými skupinami v spoločnosti je prinajmenšom rovnako tak dôležitá; rovnako ako liberálny politický systém, v ktorom sú sny o totalitnej moci zjavnou fantáziou;*

rovnako ako stabilné sociálne podmienky, za ktorých nedochádza k neustálemu mareniu všeobecných očakávaní a všeobecne prijímané myšlienky nie sú nekompetentné“ (Geertz, 2000: 262). Geertz sa venoval vymedzeniu pojmu ideológie a poukázal na veľa nedostatkov, pri jej charakterizácií. Túto problematiku vymedzenia ideológie som si vybrala práve z toho dôvodu, že sa s ňou stretávame v antropológií prakticky stále. Isto, aj súčasný antropológ chápe ideológiu ako veľmi negatívny pojem, niečo čo označuje orientáciu jedným smerom bez reflexie, niečo čo je vzdialené objektívnemu poznaniu. Keď antropológ rozoberá súčasné témy len veľmi ťažko sa vyhne orientácií nejakým smerom. Problémom podľa mňa je, že sa to práve mnohí snažia urobiť, akosi obísť citlivé témy a názory, aby neboli priradení k tým „spolitizovaným“ a vysvetľovať už vôbec nechcú, aby neboli priradení k ideológom. Lebo akákoľvek ideológia je považovaná za negatívnu. Výsledkom tohto celého sú potom etnografie, ktoré sa prakticky netýkajú problémov tejto doby. Netvrdím, že témy, ktoré sa v dnešnej antropológií rozoberajú nie sú zaujímavé, ale poukazujem na to, čo vo svojej práci uviedli aj Ahmed & Shore (1995), že antropológovia sa nezapájajú do verejných tém. Tie témy, ktoré mali spracovať antropológovia, spracovali novinári a to dokonca rýchlejšie a lacnejšie. Ahmed & Shore (1995) navrhujú, aby antropológovia prispievali do novín a začali sa zaujímať o verejné témy, v tom vidia aj budúcnosť antropológie. Súhlasím, avšak zapojenie antropológie do iných tém, ku ktorým by mali čo povedať, vidím hlavne prostredníctvom konfrontácie s problémami a existujúcimi smermi. Slovenskí antropológovia nepôsobia na miestach, odkiaľ môžu svoje výsledky prezentovať širokej verejnosti a vytvorili si kultúru mlčanlivosti.

4 INÉ OBMEDZENIA

O problémoch antropológie píše aj Ferguson (1997), ktorý vidí nedostatky antropológie v tom, že ešte stále používa termíny pochádzajúce z minulého storočia. Hlavný problém, ktorý vytyčuje, je zacielenie antropológie na jednu oblasť výskumu, určitý druh spoločnosti a potom je štúdium iných javov úplne obmedzené. S týmto názorom súhlasím, a ako vyššie popisujem, považujem za dôležité presadiť v antropológií témy týkajúce sa verejnej sféry. Ferguson (1997) tvrdí, že antropológovia sú nútení absolvovať lokálny terénny výskum v čo najzaostalejšom prostredí. Taktiež vníma rozdelenie antropológie na „západnú“ antropológiu a „ostatnú“- teda ignorovanie iných konceptov, čo vo svojej práci označuje za problematické aj Moore (2003).

Podoba uvádza niekoľko problémov v spoločenských vedách, spôsobených bývalým režimom, a to chýbajúce kritické myslenie, ktorá sa spája s neexistujúcou pluralitou prístupov. Za problematické určuje tiež, že komunistický režim si úplne podmanil vedu.“*Absencia social science a political science. To čo sa u nás označovalo a stále označuje ako spoločenské vedy, sú v podstate humanitné disciplíny*“ (2003: 76). Na antropológií sa podpísala podľa Carriera (2012) kríza viažuca sa na neoliberalizmus. Antropológovia prestali nasledovať autority, odmietli systémové teórie, odmietnutie vysvetľovania spoločenských javov neoliberalizmus negatívne ovplyvnil antropológiu. Neoliberálne myslenie a postmoderna majú spoločné známky- redukujú spoločnosť na súčet jednotlivcov a ich rozhodnutí. To môžeme považovať za nesprávne smerovanie antropológie.

5 ZÁVER

Cieľom mojej práce bolo popísať niekoľko problémov antropológie. Tieto problémy som si vybrala z toho dôvodu, že ich v antropológií tiež vnímam. Samozrejme každý prístup, (alebo aspoň väčšina) má svoje nedostatky a je podrobený kritike. Cieľom mojej práce nebolo kritizovať nedostatky jednotlivých prístupov, ale poukázať na aktuálne problémy antropológie. Vo veľkej časti svojej eseje používam prácu Geertza, avšak nie v zmysle vysvetľovania jeho prístupov, ale vybrala som si niekoľko jeho myšlienok, aby som

poukázala na to, čo nielen on označuje za problematické. Taktiež som využila niektoré z názorov iných antropológov, ktorí sa k týmto problémom vyjadrili. Za najväčší problém som označila neexistujúci záujem o verejné témy.

Použitá literatúra

1. AHMED, A.S & SHORE, C.N. *The Future of Anthropology. Its Relevance to the Contemporary World.* London: Athlon, 1995.
2. CARRIER, J.G. *Anthropology after the crisis*. Journal of Global and Historical Anthropology, 64:115-128 s, 2012.
3. FERGUSON, J. Anthropology and Its Evil Twin: „Development" in the Constitution of a Discipline, in: COOPER, F. - PACKARD, R. (eds.): *International Development and the Social Sciences. Essays on the History and Politics of Knowledge*, pp. 150-175, 1997.
4. GEERTZ, C. Interpretace kultur. Vybrané eseje. Praha: Sociologické nakladateľstvo Slon, 2000.
5. MOORE, H. L. *Future of Anthropological Knowledge*. London and New Yourk: Routledge, 2003.
6. PODOBA, J: Osobnosť americkej antropológie ako indikátor: medzi folkloristikou, esejistikou a sociálnou vedou. In: *Kritika & Kontext*, 2/2003, 76-80.

Kontaktné údaje

Mgr. Henrieta Gergelová
Fakulta sociálnych a ekonomických vied UK
Mlynské luhy 4
821 05 Bratislava
Tel: +421944539689
email: henrieta.gubanova@gmail.com

SOCIAL NETWORKING SITES IN THE ENGLISH AS A FOREIGN LANGUAGE EDUCATION PROCESS: POTENTIAL BENEFITS AND DRAWBACKS FOR HIGHER EDUCATION SETTINGS

Juraj Datko

Abstract

The presented article approaches social networks from the point of view of foreign language education. It focuses on their implementation in English language learning and instruction in higher education settings. This theoretical study is based on the results of integrative meta-analysis and aims to summarize significant benefits and drawbacks of social networks (mainly Facebook) in learning and teaching English at the mentioned level of formal education. Among other positive implications, Facebook can aid in improving students' ability to organize ideas and thoughts from various sources in English. The negatives also include lacking didactic skills on the teachers' side. Generally, it seems that benefits slightly prevail over drawbacks.

Key words: *social networking sites (SNSs), Facebook, higher education, English as a foreign language (EFL) education, benefits, drawbacks, integrative meta-analysis*

1 INTRODUCTION

The term media is so broad that there exists no general agreement on its meaning. Saettler (2004) mentions various definitions of media such as: (1) physical means for communicating a message; (2) carriers of messages between "transmitters" and "receivers"; or (3) all the means used for transporting, picking up, storing, or displaying messages, e.g. microscope, telescope, cave wall with inscribed messages, or the human ear. These different conceptions of media share one common feature - all of them are based on the assumption that media are means of communicating content. Dijck (2013, p. 5) adds that media are "socially realized structures of communication [...], where communication is a ritualized collocation of different people on the same mental map, sharing or engaged with popular ontologies of representation". In layman's terms, media are also parts of our everyday social practices.

From the perspective of EFL education, the goal of the teacher is to prepare the language learner for communication in and outside the classroom. A successful EFL learner should be able to deliver and decode a message in the target language. From this perspective, the English language can be viewed as the means of communicating a message or as the medium. Consequently, a strong parallel is visible between media and human languages, since both media (such as various devices or online applications) and (foreign) languages act as mediators of the message between the communicators (or sources of transmission and its receivers). Furthermore, since the practice of TEFL is increasingly moving towards communicative approaches, the role of media in foreign language education is becoming more and more prominent.

The emergence of Web 2.0 technologies indicates a shift in media. The term electronically-mediated communication is often used in connection with the Web 2.0 architecture and now encompasses media such as Skype, YouTube, blogs, micro blogs - Twitter, wiki-tools, massively multiplayer online (MMO) games, or social networking sites like Facebook, Instagram, LinkedIn, and ResearchGate. The mentioned web-based services are known as

social media and their evolution goes in line with the development of this new net architecture.

Social media belong to the group of online media. Kaplan and Haenlein (2010) define them as online-based applications that allow their users to generate and interchange content. These authors distinguish three types of social media according to the level of social presence: (1) blogs and collaborative projects (e.g. discussion boards or YouTube) - involving low social presence; (2) social networking sites or services (e.g. Facebook, Instagram, Snapchat, Edmodo, or Ning) - characterized by medium social presence; and (3) virtual social worlds and game worlds (e.g. MMO games) - characterized by high social presence (ibid.). This paper focuses especially on social media that involve medium social presence.

The first one who used the term social network was Barnes (1954). In this author's understanding, a social network indicates social relationships (and also simple and intimate social structures arising from such relations) that occur among persons and groups (ibid.). In the recent era, however, social networks usually denote computer-based networks that present a virtual community formed by a group of individuals with a shared interest (Jong et al., 2014). Yunus et al. (2012, p. 42) add that these Internet services set personalized media experience in a "social context of participation". According to Boyd and Ellison (2008), social networking services allow their users to: (1) create a profile and a list of other individuals with whom they are connected; (2) view information provided by others; (3) generate content; and (4) share messages with others in the network.

With around 2.07 billion monthly active users and 1.74 billion mobile monthly active users (3th quarter 2017, *statista* [online], 2017), Facebook is the largest and the most popular social networking site (SNS) worldwide. In the context of EFL education, it could be used by EFL learners to connect with English speakers who would not be otherwise reachable (Kao and Craigie, 2014), and it enables language learners to use the target language in a meaningful and authentic context (Averianova, 2012). Malá (2004) also advocates for an online learning environment in foreign language education and notes that real foreign language situations can be copied via its application. Furthermore, they intensify and improve the efficiency of the learning process, increase students' motivation, have positive impacts on peer interaction, and allow feedback for both teachers and learners (ibid.).

This paper summarizes implications of using online social networks in EFL education. It is based on the results of the reviewed language pedagogy research in using SNSs (mostly Facebook) for the purposes of EFL teaching and learning at institutions of higher education. The analyzed studies offer both positive and negative findings, but it seems that benefits prevail over drawbacks. However, Aydin (2014, p. 157) notes that only "A limited number of studies have indicated that Facebook has positive effects on [...] EFL learning"; thus, further empirical research is required.

2 METHODOLOGY

The presented paper inspects the educational aspect of SNSs (mostly Facebook). Our meta-analysis focuses on the value of social networks for EFL education at the tertiary level of formal education.

2.1 Research aims and questions

The purpose of the study is to summarize the potential benefits and drawbacks of using SNSs in higher education EFL teaching and learning. We formulated two research questions connected to the research aim:

1.) What are the potential benefits of using SNSs in higher education EFL teaching and learning?

2.) What are the potential drawbacks of using SNSs in higher education EFL teaching and learning?

2.2 Data collection and analysis

The presented literature review is based on integrative meta-analysis of selected scientific studies that deal with the topic of social networking sites (mainly Facebook) in higher education EFL teaching and learning. The meta-analysis focuses on the findings of the selected articles, although we also describe the research aims and samples. It is also noteworthy that the analyzed research is based on subjective data (including participants' views, perceptions, opinions, or attitudes) as reconstructed in questionnaires or interviews, while an objective measurement is lacking.

2.3 Research material

The research material includes nineteen scientific studies published in sixteen academic journals and one conference proceedings. Their focus areas include EFL education, computer assisted learning, education technology, or social and behavioral sciences. The analyzed papers were acquired via Google Scholar, Science Direct, Wiley, ProQuest, and ERIC. The publishing years vary from 2009 to 2014.

3 FINDINGS

3.1 Potential benefits of using SNSs in higher education EFL teaching and learning

Romano (2009) claimed that Facebook had positively affected ESL/EFL teaching and learning, as teachers and students experienced fun in English lessons. Al-Shehri's (2011) investigation revealed that the participants (33 Saudi Arabian university students of English) enjoyed using English on Facebook. More importantly, they noticed improvement in their ability to process facts, ideas, and thoughts from multiple sources written in English (ibid.). Kao and Craigie (2014) studied the role of Facebook in language learning, and they surveyed 164 Taiwanese university students enrolled in English courses. These researchers pointed to students' use of English on Facebook as being a strong predictor of their EFL achievement, and they also concluded, that this social utility "[...] enables a wide range of expressive capacity [...]" including discussions, comments, questions, or negotiation (ibid., p. 22).

There are indications in research that SNSs as EFL course supplements are perceived as suitable foreign language learning environments that have a positive influence on students' motivation to learn English and their attitudes towards foreign language learning in general. Averianova's (2012) implications for social media in TEFL suggest that SNSs have the potential to increase learners' motivation to learn English (especially in such social networking environments where students perceive others as peers). The majority of a random sample of students at the Universiti Sains Malaysia (N=300) surveyed by Kabilan et al. (2010) agreed that the use of Facebook in their English course "implanted" a more positive attitude towards EFL learning (74%) and motivated them to communicate in English (72%). Furthermore, nearly all participants (97%) perceived the Facebook platform as the perfect environment for learning English as a foreign language, since it augmented the foreign language learning process (ibid.). Using a questionnaire, Tűrkmen (2012) investigated whether using a SNS increases students' motivation to learn English and how social networking can be combined with the EFL curriculum. From a randomly selected sample of students at a Turkish university (N=84), 81.5% stated that the novelty of implementing

Edmodo (an educational SNS that reminded them of Facebook) into the course had primarily motivated them to learn the foreign language (ibid.). Adding to this, Edmodo was defined as entertaining and motivating by 62% of the respondents, while 97% felt that this SNS was the perfect platform for EFL learning outside the class (Tűrkmen, 2012).

Averianova (2012) also suggested that using social networks in EFL education might create a safe environment for language learners to produce the target language without being "pressed". This assumption is in line with the findings of Hsu (2013) who studied how a Facebook group can help EFL learners to participate in activities conducted in English. Among other affective factors, the virtual observations and questionnaires uncovered that most of the freshmen from a state university in Southern Taiwan (N=43) valued the pressure-free environment for EFL learning offered by the closed Facebook study group (ibid.). As they reported, a closed group formed by a limited number of members puts them at ease when using English (Hsu, 2013). Similarly, Simpson (2012) and Small (2014) agreed that SNSs enable foreign language learners to approach the target language communication in a more relaxed manner and with more self-confidence, because this type of electronically-mediated communication can suppress some of the inhibitions stemming from face to face interaction.

Some authors agree on the positive effects of social networking on autonomous EFL learning. One of the already mentioned research reports, namely the study conducted by Tűrkmen (2012), also concluded that using Edmodo for the purposes of foreign language learning contributed to learner autonomy, since the participants could use this platform for testing their own skills outside the classroom and enjoyed studying on their own. Laire et al. (2012) studied the attitudes of B1/B2 EFL students (N=80) towards using Storify in the English class. According to the results, it encouraged the learners to revise their own and peer-generated content (in terms of meaning and structure), thus fostering autonomous learning (Laire et al., 2012). Similarly, Yunus et al. (2012) noted that EFL learners' responsibility for their outcomes in a SNS language course group can lead them to self-directed learning.

The availability of SNSs outside the language classroom context is another potential benefit for EFL education, since using the target language in other than classroom environment leads to enhanced communicative competence (Averianova, 2012). Recently, with growing Internet accessibility, radical increase of smartphone and tablet users, and ongoing development of various Web 2.0 tools (including SNSs), language learners can be reached literally everywhere and anytime. The language instruction is thus not limited by space or time anymore; it is ubiquitous. From this perspective, online social networks can offer unprecedented exposure to English and extend the EFL instruction beyond the class (Averianova, 2012). Furthermore, Al-Shehri (2011) and Yunus et al. (2012) indicated that the time-space independence of social networks can enhance student-teacher interaction outside the context of formal language learning.

SNSs provide a platform for integrating multimedia sources, which allow simultaneous delivery of audio, visuals, and verbatim. According to the Generative Theory of Multimedia Instruction (Mayer, 1997), if teachers apply mixed modes of delivery (i.e. use multimedia to deliver the target language input), language learners can employ different modes of perception (multisensory processing) to receive and decode the message in the foreign language. Yunus et al. (2012) view the multimedia perspective of online social networks as beneficial for EFL education.

Research is also focused on using Facebook as an environment in which to develop EFL reading skills. Stewart (2009) stated that Facebook presents a suitable environment to create virtual literature circles, whereas Walker (2010) suggested that Facebook could enhance

English literature courses. Adding to this perspective of Facebook, Drouin (2011) underlined positive correlations among fluency of reading, spelling, and text messaging frequency.

The potential of SNSs for developing EFL writing seems to be the most thoroughly examined. Pascopella and Richardson (2009) stated that EFL writing instruction supported by SNSs has positive influence on keeping learners engaged. In their attempt to inspect the opportunities (and challenges) of using a Facebook group in English writing practice, Razak et al. (2013) used a mixed action research and investigated students' perceptions of the effectiveness of such approach for developing this skill. The researchers analyzed Facebook data of a purposive sample of twenty-four EFL students from various Arab countries, while the research outcomes provided evidence that interactivity of Facebook promoted students' active involvement in writing activities (ibid.). Based on their subjective perceptions, most of the students also reported that they enhanced their writing skills via communication (with the instructor and other students), sharing information, socialization, and a sense of being a member of the Facebook group (Razak et al., 2013). Shih's (2011) blended learning model that involved the integration of a Facebook group into a writing course resulted in a significant improvement of participants' (college EFL students) vocabulary, spelling, grammar, content, and ability to organize paragraphs. Yunus et al. (2012) agreed that online social networks can help students to develop vocabulary. Similarly, Kabilan et al. (2010) suggested that foreign language interactions between students and their Facebook friends are beneficial for learning new vocabulary. Using a questionnaire, Bani-Hani et al. (2014) surveyed forty-two freshmen at Jordanian Irbid University College in order to explore their attitudes towards a Facebook group as means of developing writing skills. In terms of positive impacts on EFL writing, the authors presented results consistent with Kabilan et al. (2010), Shih (2011), and Yunus et al. (2012), since most of the students reported that the created Facebook group assisted in overcoming spelling mistakes and developing writing skills and vocabulary.

A limited number of studies point to the audience and feedback as important factors affecting EFL students' engagement in writing activities supported by social media. Sun (2010) and Yunus et al. (2012) noted that foreign language learners often become more motivated and engaged in writing activities if they expect their thoughts or writing progress to be exposed to a larger audience. Hsu (2013) concluded that EFL learners will be more cautious about their style of writing or grammar if their work is presented to an audience formed by more proficient EFL speakers (e.g. language teachers or more proficient students). The same researcher also revealed that the surveyed Taiwanese university freshmen (N=43) expected a lot of feedback from their EFL instructor when posting a writing assignment in the Facebook study group (ibid.). In terms of feedback, Yunus et al. (2012) valued the response opportunities offered by social networks and stated that they enable language learners to read teacher's comments for individuals or for the whole class, thus maximizing feedback and contact with the educator.

Tab. 1 - Potential benefits of using social networking sites in higher education EFL teaching and learning

Potential benefits
improvement of students' ability to organize ideas and thoughts from various sources in English
increased student motivation
more positive attitude towards the English language
"pressure-free" environment for communication in English

ability to foster autonomous EFL learning
availability outside the English classroom
platform for multimedia-supported EFL instruction
a suitable environment in which to develop EFL reading skills
various beneficial effects on developing EFL writing skills (vocabulary development, overcoming spelling mistakes, or motivational aspect of the audience)

3.2 Potential drawbacks of using SNSs in higher education EFL teaching and learning

A number of authors (including some of the previously mentioned) discuss the potential drawbacks of employing SNSs in EFL education. In some cases, the results are contradictory to the already presented ones.

Language teachers' who lack didactic skills for adopting social networking meaningfully in their teaching practice seem to be the most obvious problem. Laire et al. (2012) conducted an exploratory research aimed at investigating Flemish EFL instructors' (N=70) beliefs and attitudes towards foreign language communication mediated by social networks. It was concluded that EFL teachers are hesitant and often apprehensive to use social media in the language classroom, because they are not equipped with the required methodological know-how (Laire et al., 2012). Furthermore, the majority of the sampled EFL teachers questioned some of the potential advantages mentioned in the previous section, namely the aspect of motivation, enhanced EFL output, and positive impact on autonomous learning (ibid.).

The already mentioned study by Laire et al. (2012) detected Belgian students' (N=80) and teachers' (N=5) attitudes towards using Storify in the English classroom. It presented mixed results. Although the teachers were positively surprised by the outcomes of the model lesson in which Storify was implemented, Laire et al. (2012) highlighted that some students were uncertain about their improvement. Kabilan et al. (2010) uncovered that more than two thirds of the sampled students (N=300) were positive about Facebook use in the EFL classroom; however, the remaining ones explained that it simply did not help them improve their English performance.

Averianova (2012) claims that the "pressure-free" atmosphere of a Facebook study group can potentially lead to a certain level of tolerance for mistakes in spelling, syntax, or grammar. It can result in deviant uses of the target language in form of abbreviations, informal short forms, simplified syntax, or new ways of expressing emotions including emoticons, and "[...] they will affect students' actual writing" (Averianova, 2012; Yunus et al., 2012, p. 47). In connection to deviances from the normative use of the target language, nearly half of Andwaruddin's (2012) respondents reported that Facebook had encouraged them to use incorrect forms of English. These statements clearly express the need of establishing a set of rules for communication via social media.

Some researchers questioned the motivational aspect of SNSs in foreign language learning. Hsu (2013) assigned students' initial attraction and motivation to use English on Facebook to the novelty aspect. As explained by the author, "[...] when the novelty abated, they became inactive" (ibid., p. 259). The diary research by Simpson (2012) presented positive results in terms of Facebook as a secure environment for language learning but also concluded that Facebook use had no visible impact on participants' motivation to learn English. These studies present results contradictory with Kabilan et al. (2010) and Tűrkmen (2012), as they reported an observable increase in students' motivation.

Yunus et al. (2012) and Bani-Hani et al. (2014) were cautious about Facebook's potential to distract EFL learners from their educational objectives. These authors agreed that students might not focus on foreign language learning when they use this utility.

Another potential drawback of using SNSs in EFL education is related to students' difficulties with following group postings. The twenty-four EFL students inspected by Razak et al. (2013) reported that they sometimes encountered problems with understanding and following the posts in the EFL writing Facebook group, mostly due to their busy schedule. Hsu (2013) presented similar reason for students' inhibited capability to follow daily group postings, namely upcoming assignments and examinations. Some of the forty-three university students enrolled in the English class admitted that they would be too busy and too tired to concentrate on the group posts if they had loads of work or if a big exam was imminent (ibid.). Additionally, Yunus et al. (2012) stated that some EFL students can face difficulties while reading the study materials in the environment of an online social network, since they might prefer to study from traditional books or other printed materials.

The last problem is connected with the technical perspective. Recently, the lack of Internet access or devices that allow students to be "online" is not significantly apparent. However, teachers should not rely on it as a universal fact (Yunus et al., 2012). Razak et al. (2013) also described a few technical problems that negatively affected the surveyed Arab EFL students' ability to actively participate in the Facebook group activities, namely electricity cut-offs, Internet disconnections, and slow Internet access.

Tab. 2 - Potential drawbacks of using social networking sites in higher education EFL teaching and learning

Potential drawbacks
lack of methodological knowledge and skills on the teacher side to successfully utilize SNSs in foreign language education
students' uncertainty about improved EFL performance
potential for deviant uses of English
no significant impact on EFL students' motivation
the distraction aspect
difficulties with following group postings (due to hectic daily or upcoming examinations)
technical difficulties (slow Internet connection or electricity cut-offs)

4 CONCLUSION

Several conclusions can be drawn from the meta-analysis. Social networking sites can facilitate student-student and teacher-student communication (beyond the classroom limits). However, the lack of rules for this communication channel should be taken into consideration, since it can create obstacles in EFL education. Particularly, the unavailability of such communication rules can create space for deviances in the use of the target language (e.g. informal short forms, simplified syntax, or emoticons).

Some EFL students feel that a learning environment created on a social network (such as a closed Facebook group with a limited number of members) is a pressure-free and secure place for communication in English. Furthermore, language learners might perceive it as an ideal English learning platform.

Social networks are ubiquitous technology, as they can be accessed anytime and anywhere using various electronic devices (including computers, gaming consoles, smartphones, or tablets). The time/space-independent nature of SNSs implies a potential for extending the EFL instruction outside the language classroom. This extended exposure to English can consequently lead to improvements in students' EFL performance.

A Facebook group can increase student involvement in EFL study activities. However, if students are in the middle of a hectic period or an exam is imminent, they can have problems with following daily postings in a course Facebook group.

SNSs as course supplements in foreign language learning can have positive impact on students' motivation to learn the target language. In the case of a Facebook study group, mostly the novelty aspect and audience seem to carry motivational value. However, some researchers concluded that using Facebook is not significantly motivating.

An EFL learning environment on Facebook can have positive influence on students' reading skills, writing skills, or ability to organize ideas from multiple sources in English, although some students reported uncertainty about improvements in their EFL performance.

Social networks in EFL education can foster self-directed EFL learning. For example, the interactivity of SNSs (namely Facebook) promoted students' active involvement in EFL writing activities. Using SNSs in foreign language education also enabled students to study on their own, test their language skills beyond the classroom, and revise their own and peer-generated content.

From the technical perspective, it allows to use multimedia, sources that can enhance foreign language learning via enabling mixed modes of instruction. However, as with any e-learning environment, EFL teachers and students might face various technical problems such as lack of e-devices, slow Internet connection, or electricity cut-offs.

Facebook can consume the time that could be otherwise spent on dealing with academic matters, and it can distract EFL students from learning. On the other hand, students can be also distracted from language learning by other activities such as "night life".

Finally, it is also apparent from the research that some EFL instructors are not equipped with the pedagogical know-how necessary for a successful implementation of SNSs into the EFL education process.

References

1. AL-SHEHRI, S. 2011. Connectivism: A new pathway for theorising and promoting mobile language learning. In *International Journal of Innovation and Leadership on the Teaching of Humanities* [online]. 2011, vol. 1, no. 2.
2. ANWARUDDIN, S. M. 2012. Learning English in the Age of Facebook. In *Journal of Technology for ELT* [online]. 2012, vol. 2, no. 3. ISSN 2231-4431.
3. AVERIANOVA, I. 2012. Social Media in Teaching English: Promises and Problems. In *Lecture Notes in Information Technology* [online]. 2012, vol. 14. ISBN 978-1-61275-012-5.
4. AYDIN, S. 2014. Foreign language learners' interactions with their teachers on Facebook. In *System* [online]. 2014, vol. 42. ISSN 0346-251X. (p. 157)
5. BARNES, J. A. 1954. Class and Committees in a Norwegian Island Parish. In *Human Relations* [online]. 1954, vol. 7, no. 1. ISSN 1741-282X.
6. BANI-HANI, N. A. et al. 2014. Utilizing Facebook Groups in Teaching Writing: Jordanian EFL Students' Perceptions and Attitudes. In *International Journal of English Linguistics* [online]. 2014, vol. 4, no. 5. ISSN 1923-8703.

7. BOYD, D.; ELLISON, N. 2008. Social network sites: Definition, history and scholarship. In *Journal of Computer-Mediated Communication* [online]. 2008, vol. 13, no. 1. ISSN 1083-6101.
8. DIJCK, J. V. 2013. *The Culture of Connectivity: A Critical History of Social Media.* New York : OUP, 2013. 240 p. ISBN 978-0-19-997078-0. (p. 5)
9. DROUIN, M. A. 2011. College students' text messaging, use of textese and literacy skills. In *Journal of Computer Assisted Learning* [online]. 2011, vol. 27, no. 1. ISSN 1365-2729.
10. HSU, L. 2013. Leveraging Interactivities on Social Networking Sites for EFL Learning. In *International Journal of English Language Education* [online]. 2013, vol. 1, no. 3. ISSN 2325-0887. (p. 259)
11. JONG, B. et al. 2014. An exploration of the potential educational value of Facebook. In *Computers in Human Behavior* [online]. 2014, vol. 32. ISSN 0747-5632. (p. 210)
12. KABILAN, M. K. et al. 2010. Facebook: An online environment for learning of English in institutions of higher education? In *The Internet and Higher Education* [online]. 2010, vol. 13, no. 4. ISSN 1096-7516.
13. KAO, P.; CRAIGIE, P. 2014. Effects of English Usage on Facebook and Personality Traits on Achievement of Students Learning English as a Foreign Language. In *Social Behavior and Personality* [online]. 2014, vol. 42, no. 1. ISSN 1179-6391. (p. 22)
14. KAPLAN, A; HAENLEIN, M. 2010. Users of the world, unite! The challenges and opportunities of social media. In *Business Horizons* [online]. 2010, vol. 53. ISSN 0007-6813.
15. LAIRE, D. et al. 2012. Social Media's Learning Outcomes within Writing Instruction in the EFL Classroom: Exploring, Implementing and Analyzing Storify. In *Procedia – Social and Behavioral Sciences* [online]. 2012, vol. 69. ISSN 1877-0428.
16. MALÁ, E. 2004. E-learning ako nová forma výučby cudzích jazykov. In *Technológia vzdelávania. Príloha Slovenský učiteľ* [online]. 2004, vol. 8. ISSN 1338-1202.
17. MAYER, R. E. 1997. Multimedia Learning: Are We Asking the Right Questions? In *Educational Psychologist* [online]. 1997, vol. 32, no. 1. ISSN 1532-6985.
18. PASCOPELLA, A.; RICHARDSON, W. 2009. The New Writing Pedagogy. In *District Administration* [online]. 2009, vol. 45, no. 10. ISSN 1537-5749.
19. RAZAK, N. A. et al. 2013. Adopting Social Networking Sites (SNSs) as Interactive Communities among English Foreign Language (EFL) Learners in Writing: Opportunities and Challenges. In *English Language Teaching* [online]. 2013, vol. 6, no. 11. ISSN 1916-4750.
20. ROMANO, T. 2009. Defining Fun and Seeking Flow in English Language Arts. In *English Journal* [online]. 2009, vol. 98, no. 6. ISSN 0013-8274.
21. SAETTLER, P. 2004. *The Evolution of American Educational Technology.* Charlotte : IAP, 2004. 570 p. ISBN 978-1-59-311139-7.
22. SHIH, R. C. 2011. Can Web 2.0 technology assist college students in learning English writing? Integrating Facebook and peer assessment with blended learning. In *Australasian Journal of Educational Technology* [online]. 2011, vol. 27, no. 5. ISSN 1449-5554.
23. SIMPSON, M. N. 2012. ESL@Facebook: A Teacher's Diary on Using Facebook. In *Teaching English with Technology* [online]. 2012, vol. 12, no. 3. ISSN 1642-1027.

24. SMALL, M. 2014. Theoretical Implementations of Various Mobile Applications Used in English Language Learning. In *Teaching English with Technology* [online]. 2014, vol. 14, no. 1. ISSN 1642-1027.
25. *statista* [online]. 2017 [cit. 2017-11-13]. Number of monthly active Facebook users worldwide as of 3rd quarter 2017. Available at: <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>.
26. STEWART, P. 2009. Facebook and Virtual Literature Circle Partnership in Building a Community of Readers. In *Knowledge Quest* [online]. 2009, vol. 37, no. 4. ISSN 1094-9046.
27. SUN, Y. C. 2010. Extensive writing in foreign-language classrooms: A blogging approach. In *Innovation in Education and Teaching International* [online]. 2010, vol. 47, no. 3. ISSN 1470-3300.
28. TÜRKMEN, H. G. 2012. Using Social Networking in EFL Classroom in Higher Education. In *E-learning and Software for Education* [online]. 2012, vol. 1. ISSN 2066-026X.
29. WALKER, A. 2010. Using Social Networks and ICTs to Enhance Literature Circles: A Practical Approach. In *Diversity Challenge Resilience: School Libraries in Action* - Proceedings of the School Library Association of Queensland and the International Association of School Librarianship conference (27 September - 1 October 2010). Brisbane, Australia.
30. YUNUS, M. M. et al. 2012. Integrating Social Networking Tools into ESL Writing Classroom: Strengths and Weaknesses. In *English Language Teaching* [online]. 2012, vol. 5, no. 8. ISSN 1916-4750. (p. 42, 47)

Contact

Mgr. Juraj Datko, PhD.
Univerzita Konštantína Filozofa v Nitre – Pedagogická fakulta
Katedra lingvodidaktiky a interkultúrnych štúdií
Dražovská cesta 4, 949 74 Nitra
Tel: +421 915 873 233
email: jdatko@ukf.sk

DIFFICULTIES IN SPEECH PRODUCTION OF LEARNERS OF ENGLISH AS A FOREIGN LANGUAGE

KlaudiaPauliková

Abstract

Speaking well in a foreign language is extremely important. Experiencing difficulties while producing speeches, is, however, very common among learners of foreign languages. The study examines the most common difficulties the learners of foreign languages have to deal with in their studies from a theoretical perspective, which is examined by a qualitative research executed in a real classroom environment. The study uses two research methods – observation and interview with an evaluation of the received results by comparison.

Keywords: *difficulties in speech production, mother tongue, accuracy, fluency, time pressure, knowledge, confidence, foreign languages*

1 INTRODUCTION

Speaking in a foreign language is one of the most important requirements for a successful communication between individuals. In order to formulate a well understandable speech and communicate it meaningfully towards the wider public, many influencing factors are needed to be taken into consideration. And reflecting on the fact that even speaking in the mother tongue can be a challenging task to do from time to time; it is not surprising that speaking in a foreign language can be even more difficult with more challenging factors to overcome. There is a huge variety of such factors in our language studies. The most dominant ones, however, seem to be shaping and influencing our speech on a daily basis.

2 DIFFICULTIES IN SPEECH PRODUCTION

Speaking in a foreign language classroom has not always been one of the most popular skills to be mastered, which has, naturally changed over the years. Howatt and Smith (2014) believe that the basic principle of the modern day education of speaking in a foreign language lies in the "real world" conversation. That is, however, very difficult to be achieved, as most of the teachers have the tendency to monitor their students all the time throughout the teaching process. As an addition to that Thornbury (1995) explains that almost all teaching methods and techniques concentrate their attention exclusively on the rehearsal of grammar, vocabulary and pronunciation without paying any attention to a real conversation. Moreover, he adds that almost all the authentic discussions are pushed to the very beginnings and ends of the lessons, thus taking up only the form of a short chat. The true and genuine conversation allowing the learners to practice authentic speech is more or less completely missing from the classrooms. As a result the students feel unprepared for communication beyond their foreign language lessons.

Together with the insufficient amount of time devoted to real conversation in the classrooms, the four basic mental processes of speech production (conceptualization, formulation, articulation and self-monitoring) defined by Levelt (1989) are also influencing the nature of a spoken utterance to a great deal. Even though they do not vary when mother tongue and foreign language are compared, they may cause some significant difficulties for foreign language speakers, as the transitions between the individual processes may not be as smooth as in using our mother tongue.

Regarding the fact that speakers may experience various kinds of difficulties through their journey of learning a foreign language, some of the most common problem causing elements

of speech should be mentioned. In addition to the two causes of problems mentioned above, there is a wide range of difficulty causing factors when it comes to the analysis of speech problems of foreign language speakers.

2.1 Accuracy and Fluency

The speed of an utterance may be slowed down due to the lack of skilful use of the four mental processes. The learners tend to pay too much attention to some aspects of their speech production, while others are neglected. In most cases they either try to be as accurate as possible, thus paying too much attention on monitoring their own speech or have problems with the distribution of their attention between planning what to say and articulation. As a result the utterance loses much of its natural fluency (Thornbury, 1995).

There are language users, however, who experience different kinds of difficulties in their spoken performance. Instead of proceeding slowly and accurately by monitoring themselves too much, these speakers tend to use all the resources they have in their knowledge to express their thoughts – even if they are grammatically incorrect. Using a variety of strategies, such as not respecting the grammatical rules or even switching to mother tongue when in need, makes their utterance a little more fluent than in the first case, but far not as accurate as it should be (ibid., 1995).

2.2 Knowledge

It is also important to mention lack of language knowledge as one of the possible causes of problems in speech production. Insufficient amount of knowledge can cause difficulties in accuracy, fluency and also complexity of speech (Carter and Nunan, 2001). Thornbury (1995) on the other hand claims that it is also possible that it is not the lack of knowledge, which prevents the speakers from producing a fully valuable speech, rather the inability to retrieve structures, which they are already familiar with. Scrivener (2005) further states that knowing the grammar and vocabulary perfectly does not necessarily mean the ability of learners to use the language in a complex, accurate and fluent way. Due to the fact that some of the vocabulary or grammatical structures are not integrated into learners' knowledge well enough by the process of automation, difficulties are likely to appear while trying to retrieve some information when needed.

2.3 Time Pressure

Producing an oral utterance, especially in a language different than the mother tongue, may need some preparation before being ready to perform it. The preparation is, however, not allowed, when a real conversation with unexpected twists like questions or deflections from the main conversation topic occurs. Having restricted amount of time to prepare what to say is called time pressure.

Batstone (2003) explains that the feeling of lack of time for preparation of the spoken utterance often results in less structured and accurate performance, than would be done under conditions of having enough time for planning. Bygate (1987) adds that this happens especially when the speakers are not able to deal with the time pressure to an adequate degree. As one of the results they tend to improvise, use ellipsis- avoiding excessive effort in the production of an utterance and omit unnecessary parts of the speech by producing incomplete clauses and sentences.

Furthermore using fixed phrases and expressions from the retrievable knowledge is another effect of time pressure on learners. Thornbury (1995) states that producing a speech by easily available conventional language reduces the degree of time pressure and allows the learners to produce utterances without extra stress.

Exactly because of time pressure many speakers are likely to use various means for gaining extra time to speak such as simplification of the target language, leaving out unnecessary parts from the speech, use of formulaic expressions or using fillers and hesitation phrases (Bygate, 1987).

2.4 Nothing to Say

The issue of nothing to say may be one of the most inconvenient difficulties learners have to face in their language studies. Both Thornbury (1995) and Harmer (1991) agree that the lack of background knowledge about certain topics or tasks, uncertainty about grammar, or not sufficient amount of vocabulary knowledge can all lead to students avoiding to talk. Moreover, Lawtie (2004) claims that the learners remain silent because often the tasks and topics they are given are not challenging enough. She explains that activities not interesting for the students will make them stay quiet and lose their attention in performing.

2.5 Use of mother tongue

Using the mother tongue in foreign language education can be a process slowing issue when it comes to mastering a spoken discourse. Learners tend to switch to their mother tongue whenever they feel the need for it, thus making sure their utterance is not interrupted. Thornbury (1995) and Carter and Nunan (2001) agree that the use of learners' mother tongue may be very disturbing for the character of the lesson, since the modern methods all encourage the use of one language in the classrooms – the target language.

Hetrakul (1995) explains that the reason for switching into the mother tongue lies in the fact that most of the learners think in their own language, which unwillingly makes them switch to it even if they have no intention to do so. On the other hand, Harmer (1991) clarifies that there are more reasons for switching into the mother tongue. It might be the unwillingness of students to communicate in the foreign language, which can be caused by various issues, such as unclear tasks, bad relationship to the teacher or lack of confidence. Moreover it is likely to have roots in making the learners speak about issues, which they do not have linguistic capability for. In order to express their thoughts they will change to their mother tongue instead of using the foreign language.

Atkinson (1987), however, exclaims that switching to the mother tongue has not necessarily have to be listed into the list of problem causing elements in language education. As far as he is concerned, grammatical explanations, giving instructions or even discussing the methodology in a mother tongue can all be highly beneficial for the success of the lesson. Therefore the teachers always need to be aware of the reasons why L1 is being used.

2.6 Confidence

Having enough confidence while speaking a foreign language, is one of the key factors of being successful in communication. The lack of confidence, on the other hand, may cause severe difficulties in transferring a truly valuable and meaningful message to the wanted audience. According to Thornbury (1995) confidence is mostly affected by numerous factors, such as lack of fluency, accuracy or knowledge of the given language. As a result of not being able to communicate a message of their desires as they would do in their mother tongue, the learners often feel frustrated and even embarrassed in some situations. Harmer (1991) moreover adds that learner' confidence might be influenced by external factors, as well. Not only do the overall circumstances of the environment have quite a deep impact on the students, but also the elements in it– the surrounding people. These may be the classmates, or in many cases the teachers themselves, as Lawtie (2004) explains, who willingly or unwillingly make the speakers become shy and inaccessible.

Having difficulties in producing highly valuable and accurate speech is a completely natural and commonly occurring concern among the speakers of foreign languages. As it has been mentioned above, one of the difficulty causing aspects may be the mental processes and the inability to use them automatically, thus affecting accuracy and fluency of the speech. On the other hand complications may occur on the level of switching to mother tongue, feeling time pressure or not being able to retrieve formerly gained knowledge. Sometimes it happens that learners have nothing to say, or even feel frustrated, thus losing the natural confidence, which would help them overcome many of the difficulty causing factors. As a conclusion it can be stated that even though all the problem causing elements are slightly varying in nature, they are often interconnected and may affect the learners to a greater degree, than they would admit. Therefore it is vital for the teachers to deal with the issue and implement strategies and methodologies which help their students overcome these inconveniences.

3 RESEARCH

The study used a qualitative research, which was based on examining the difficulties of speech production in foreign language in a practical environment. It involved two groups of adult students, who attended English language courses at a local language school. Their English was of levels A2 and B1 and they attended the courses two times a week for ninety minutes. The twelve participants of the study were chosen according to convenience sampling.

Due to the nature of the investigated issue there were several objectives that arose. They were planned as follows:

1. To observe and identify what difficulties the learners had from the perspective of the researcher.
2. To find out what difficulties the learners themselves claimed to have.
3. To compare the data received from the two sources and identify the differences.

As a consequence, the researcher stated three research questions, which served as guidance throughout the course of the research:

1. What difficulties do the learners have based on the observation of the researcher?
2. What speaking difficulties do the learners themselves identify with?
3. What are the similarities and differences between the results of the researcher and learners, when it comes to identifying difficulties in speech production?

3.1 Methods

There were two methods chosen for investigation – observation and questionnaire. The observation lasted for two months and it focused on difficulties in speech production of the examined learners. It took place simultaneously with the teaching process and the received data were recorded after the lessons. The main fields of investigation were the previously depicted most challenging issues – confidence, use of mother tongue, the issue of nothing to say, lack of knowledge about certain topics, accuracy and fluency and the feeling of time pressure. The collected data were analysed and processed for further comparison and research results.

The questionnaire was a non-standardized one developed by the researcher with the aim of finding out the major difficulties the learners identified themselves with. It involved twelve questions divided into two main sections – language skills in general and speaking. The first section was aimed at finding out which of the four basic language skills the adult learners found most important to be mastered. The second section dealt solely with speaking. It included inquiries about the importance of aspects of speech, difficulties with speech and overall satisfaction with speech production in the target language. All the questions of the

questionnaire were equally important in getting an adequate perspective on what the learners found important and where they thought they had deficiencies.

4 RESEARCH RESULTS

After a thorough analysis of the collected data an evaluation was made, which was processed into the research results listed below. The research results focused on outcomes of the observation, results earned from the questionnaire and the overall evaluation and comparison of all the received data.

4.1 Results of observation

The results of the observation show that about 50% of the learners were experiencing minor difficulties with confidence while producing speeches in English, whereas the rest of the learners seemed to have greater issues with the subject matter. These assumptions were based on the researcher's notes, which showed that even in fulfilling simple tasks the learners very often refused to speak aloud in front of their classmates and although they knew the language and the structures, they tended to stay silent. The overall atmosphere at the lessons was, however, very relaxed and friendly.

The second investigated matter was lack of knowledge. It was not observed that lack of knowledge would be restricting the learners from speaking to a great deal, as both the topics in their course books and the practical speaking exercises the researcher created were of adequate levels of the learners knowledge. Their quality of speech, was, however, lower in certain situations, which was observed by not being able to retrieve formerly gained grammatical structures or vocabulary.

Time pressure, however, appeared to be a difficulty causing element, especially in the terms of fulfilling tasks with a limited amount of time given to the learners. Even though they did their best to perform as well as possible, it was quite often that they either ran out of the time given or did not perform so well.

Nothing to say, as another observed phenomenon, was not perceived to be difficulty causing. The learners always showed interest and willingness to contribute to the happenings in the class.

They, however, showed some tendency to switch to their mother tongue, especially with the intention not to interrupt the fluency of their speech. It was observed that some of the words used in the mother tongue were slips and happened by accident, but some of them were done on purpose, because the learners did not know a certain word or phrase in the target language, so instead of stopping they simply switched to Slovak.

The last observed issue was accuracy and fluency. These two phenomena seemed to cause obstacles to the learners to the highest degree. The majority of the participants showed difficulties in either using the language accurately or being fluent enough. The observation revealed that when the learners were concentrating on giving accurate speeches, the level of their fluency was decreasing. The same phenomenon was observed vice versa.

4.2 Results of the questionnaire

The results of the questionnaire were processed into the findings according to the same criteria the questionnaires were established – language skills and speaking.

Section A – Language Skills

The first section dealt with the four language skills in general. The two questions were interested in which of the four skills were the most important for the learners and what the order of the skills according to their importance was. The main goal of the two questions was

to find out, whether the skill of speaking possessed a special role in their language learning, or was no more important than reading, listening and writing.
According to the answers of the respondents to the two questions it was found out that the most important skill to be mastered was speaking. Not only did the majority of respondents mark it as the most important in their language studies (ten out of twelve), but they also noted that it was due to the importance of speaking for being able to communicate in everyday life situations, gaining better working opportunities or even communicating with foreigners and abroad that they considered speaking to be the most important.

Section B – Speaking

The second section of the questionnaire dealt with the phenomenon of speaking and the possible difficulties students were likely to experience throughout their language studies. There were ten questions altogether and they all were concerned with speaking in the target language. The inquiries included information about aspects of speech, difficulties while communicating, mother tongue interference and desires for improvement.
In the first inquiry the learners were asked to number the following means of speech (accuracy, fluency, complexity of speech, confidence and sufficient knowledge about a given topic) according to their importance in their language studies. Even though the respondents‟ answers were quite diverse, the results showed that the two most important aspects of speech were accuracy and fluency, followed by complexity of speech on the third place and having sufficient knowledge in the fourth place. Surprisingly, confidence was considered to be the least important for the participants.
After sequencing the aspects into the order of preference, learners were asked whether they ever had experienced any difficulties in any of them. Eleven out of twelve students answered that they had had difficulties with at least one of the previously mentioned aspects.
The next question, therefore, dealt with specific problems which the students were likely to have while speaking. The six statements listed in the questionnaire portrayed problems with fluency, confidence, accuracy, complexity of speech, lack of knowledge and the issue of nothing to say. The most frequent difficulties that the learners had to face while speaking English, according to the responses, were lack of fluency and accuracy, both being equally problem causing for eight out of twelve respondents. Moreover, as the further finding showed, the previously mentioned were also the most frequently difficulty causing elements. The second biggest difficulty causing item was complexity of speech, as seven out of twelve learners claimed that their speech was not complex enough. Problems with confidence and knowledge were trouble causing for five learners, and the last issue – nothing to say – was not marked by any of the participants.
It has also been found out that eleven out of twelve learners admitted that despite knowing the grammar and vocabulary correctly, their spoken interaction was lower in quality because they were not always able to use all their knowledge properly.
Another matter of interest was switching into mother tongue while performing in English. This inquiry focused on whether the participants ever switched to their mother tongue, and if they did what the cause of it was. Ten participants out of twelve, as the results showed, tended to switch to their mother tongue (Slovak or Hungarian) occasionally, or on purpose when not knowing something in English.
To the inquiry whether the learners ever felt time pressure while speaking English, six out of twelve responded with a positive answer. Those six participants, who did not feel any kind of time pressure while speaking in English, admitted that they had never had a chance to speak English outside the classroom before.

Being provided enough real world conversations was the focus of the next question. Even though all the twelve participants unambiguously answered that they were, they remarked that these kinds of conversations were very important for them to be able to communicate about everyday life topics not only on the lessons of English, but also outside the classroom.
The penultimate question was a simple closed question with two possible answers – yes and no and it was concerned with whether the participants were overall satisfied with their English. Only one of the respondents answered yes, all the others stated that they were not satisfied with their English at all.
The very last question was aimed at finding out what the learners' desires to improve about their speech were. The results show that most of the learners, eight, wanted to improve their accuracy and fluency. They were unsatisfied with the range of vocabulary they were familiar with, so that was one of the issues they wished to work on. Another issue, according to them, was the range of grammar. As they noted, they wanted to improve both their knowledge of grammar and the ability to use it in practice. Moreover, they were concerned with being able to react to questions properly without delays.

4.3 Comparison of received results

Considering the analysed information, it must be stated that almost all the investigated issues indicated very similar results. The analysis of "fluency and accuracy" showed that these two phenomena were the most important for the learners and also the most difficulty causing according to the results of both methods – observation and questionnaire. "Nothing to say" was neither disturbing nor problematic for any of the learners, which was also confirmed by both of the used methods.
Even though the results of observation on "knowledge" showed that the lack of knowledge could not have been difficulty causing due to the sufficient and adequate teaching materials, both findings revealed that the participants did experience obstacles in this area. They were identified mainly in lower quality of speech, because of not being able to use the grammatical structures and vocabulary the participants had formerly acquired.
The comparison of the results of "switching to mother tongue" was also very similar. The data observed by the researcher were also confirmed by the participants, who admitted that they had the tendency to switch to Slovak either by mistake or on purpose.
Considering "lack of confidence", the results of the observation showed that the issue was difficulty causing for the learners. The questionnaires, however, revealed that only five of the twelve participants identified themselves with the speaking difficulties originating from having lack of confidence.
The last compared phenomenon was the feeling of "time pressure" while performing. Even though the results from the observation showed that the students were performing worse under time pressure, according to their answers in the questionnaires this issue was not obscuring to such a great degree.
It must be stated, therefore, that even though the data received from the observation had great importance for identifying the biggest difficulties the learners experienced, the results of the questionnaires gave more detailed and personal information. The two methods used for the study, as a result, not only served as a feedback for one another, but also as complementary materials for further investigation and deeper insight into the matter of interest.

5 CONCLUSION

The results of the study show that having difficulties while speaking is quite a common occurrence in foreign language education. The data depicted and then examined in the article prove the great importance of speaking in foreign languages and the fact that obstacles in language production are not only very common, but also identified between the learners of

foreign languages themselves. Even though the sample of the examined participants was very small, the results may serve as guidelines for teachers on what to bear in mind while teaching languages, especially in the terms of dealing with difficulties with speech production. Paying attention to difficulties in speech production and the possibilities of eliminating them, the learners' overall performance may increase. Moreover, such approaches may have positive influence on learners' confidence and also the overall atmosphere in the classroom.

Sources

1. ATKINSON, D. 1987. *The mother tongue in the classroom: a neglected resource?* In ELT Journal [online]. 1987. [cit. 2017-03-01]. Available at: https://www.researchgate.net/publication/247932359_The_mother_tongue_in_the_classroom_A_neglected_resource
2. BATSTONE, B. 2003. *Grammar*. 6th ed. England: Oxford University Press, 2003. 149 p. ISBN 0194371328
3. BYGATE, M. 1987. *Speaking*. 1st ed. Oxford: Oxford University Press, 1987. 121 p. ISBN 9780194371346
4. CARTER, R. – NUNAN, D. 2001. *The Cambridge Guide to Teaching English to speakers of other languages*. 1st ed. New York: Cambridge University Press, 2001. 294 p. ISBN 9780511500428
5. HARMER, J. 1991. *The practice of English language teaching*. 3rd ed. England: Longman, 1991. 371 p. ISBN 9780582403857
6. HETRAKUL, K. 1995. *Second language*. In Eserver [online]. 1995. [cit. 2017-02-20]. Available at: http://eserver.org/courses/spring95/76-100g/KavinHetrakul.html
7. HOWATT, A. P. R – SMITH, R. 2014. *The history of teaching English as a foreign language, from a British and European perspective*. In Language and History [online]. 2014. [cit 2017-01-07]. Available at: http://www.tandfonline.com/loi/ylhi20
8. LAWTIE, F. 2004. *Teaching speaking skills 2 – Overcoming classroom problems*. In Teaching English [online]. 2004. [cit. 2017-02-21]. Available at: https://www.teachingenglish.org.uk/article/teaching-speaking-skills-2overcoming-classroom-problems
9. LEVELT, W. J. M. 1989. *Speaking: from intention to articulation*. 1st ed. MIT Press, 1989. 566 p. ISBN 9780262620895
10. SCRIVENER, J. 2005. *Learning teaching: A guidebook for English language teachers*. 2nd ed. Macmillan ELT, 2005. 432 p. ISBN 9781405013994
11. THORNBURY, S. 1995. *How to teach speaking*. 1st ed. Pearson Longman, 1995. 156 p. ISBN 978058283591

Contact

Mgr. Klaudia Pauliková
Department of Language Pedagogy and Intercultural Studies
Faculty of Education
Constantine the Philosopher University in Nitra
Drážovská 4, 949 74 Nitra, Slovakia
email: klaudia.paulikova@ukf.sk

STATUS SESTRY A JEHO VNÍMANIE NA SLOVENSKU

NURSE'S STATUS AND PERCEPTION IN SLOVAKIA

Jana Cuperová, Terézia Fertaľová, Lívia Hadašová, Iveta Ondriová

Abstrakt

V našom príspevku sa zaoberáme problematikou sociálného postavenia sestier na Slovensku. Postavenie chápeme ako kombináciu statusu, prestíže a roly sestry. V rámci zisťovania sme oslovili 165 sestier pracujúcich v nemocniciach. Cieľom nášho prieskumu bolo zistiť, ako sestry vnímajú sociálny status svojej vlastnej profesie. V rámci toho sme skúmali spokojnosť sestier s ohodnotením ich práce a celkovú pracovnú spokojnosť. Zisťovali sme aké miesto podľa sestier zaujímajú v rebríčku povolaní a do akej spoločenskej triedy sa zaraďujú. Pomocou dotazníka sme identifikovali, že pri sebahodnotení vlastného povolania sestry sa zaradili na popredné miesta v rebríčku jednotlivých povolaní. Za dôležité faktory, ktoré ovplyvňujú ich status označili vzdelanie, výšku platu, pôsobenie masmédií a zmeny v ošetrovateľstve.

Kľúčové slová: *sestra, spoločenské postavenie, povolanie sestry, prieskum*

Abstract

In our study we deal with the issue of social status of nurses in Slovakia. Status is a combination of the prestige and roles of the nurse. We surveyed 165 nurses working in hospitals. The aim of this research was to find out how nurses perceive the social status of their own profession. As part of this, we examined the satisfaction of the nurses with the evaluation of their work and overall job satisfaction. We have noticed what place they are interested in in the rankings of the professions and what kind of social class they are involved in. Using the questionnaire, we identified that when self-assessing their own profession, nurses ranked among the top positions in the ranks of each occupation. Significant factors affecting their status have been education, salary, mass media, and nursing.

Key words: *nurse, social status, nurse profession, survey*

1. ÚVOD

„Byť sestrou znamená slobodne sa rozhodnúť pre osobnú službu druhému človeku, ktorá spočíva v poskytovaní pomoci pri ochrane, podpore a prinavrátení zdravia“ (Dimunová, 2010). Ideál zdravotníckeho povolania je komplexom nielen mravných vlastností, ľudského prístupu a zručnosti i vedomosti zdravotníckych pracovníkov, ale predovšetkým ich integráciou a uplatnením v každodennom kontakte s pacientom (Derňárová, 2008). *„Jedinečnou úlohou sestry je asistovať chorému alebo zdravému jednotlivcovi pri vykonávaní činností súvisiacich so zdravím, jeho navrátením alebo s pokojnou smrťou, ktoré by vykonával bez pomoci, keby mal potrebné schopnosti, vôľu alebo vedomosti, a to takým spôsobom, aby čo najskôr dosiahol nezávislosť“* (Archalousová, 2005). Profesia sestry zahrňuje určitý systém rolí a rolového správania predpokladaného spoločenským statusom povolania. Rola je očakávané správanie jedinca, ktoré súvisí s jeho určitým postavením v spoločnosti (Farkašová, 2005).

1.1 Status a prestíž profesie sestry

Diferenciácia spoločnosti podľa sociálneho statusu a s tým spojená sociálna nerovnosť sú rysom všetkých moderných spoločnosti. Slovník cudzích slov vysvetľuje pojem „status“ ako: *„miesto človeka v spoločnosti“*. Sociológia definuje termín sociálny status ako: *„sociálna pozícia v skupine, v spoločnosti, spojená s istými právami a povinnosťami“* (Sopóci, 2006). Práva a povinnosti vyplývajú zväčša z pozície. Sociálny status sa môže meniť v závislosti od veku, socio-ekonomického zaradenia, úrovne vzdelania, miery sociálnej aktivity. Viacero statusov v živote človeka je daný jeho postavením, ako príslušníka nejakej spoločenskej triedy, či vrstvy, úrovňou vzdelania, miestom bydliska, rodinnou pozíciou alebo príslušnosťou k určitej vekovej skupine (Bocková, 2006).

Na sociálny status nadväzuje aj prestíž povolania. Pojem prestíž môžeme inými slovami vyjadriť ako váženosť. Prestíž je taktiež často stotožňovaní s pojmom sociálny status, aj keď v mnohých štátoch sa stretávame s názorom, že je skôr indikátorom sociálneho statusu. V histórii sa menia indikátory charakterizujúce prestíž pozície. V rôznych obdobiach, ale i v súčasnej dobe v rôznych štátoch a kultúrach existovali (existujú) odlišné ukazovatele charakterizujúce prestíž pozície. Prestíž povolania môžeme chápať v dvoch vzájomne spojených sociálnych funkciách. V prvej sa na prestíž povolania hľadí ako na prejav subjektívnej dimenzie, objektívne existujúca vertikálna diferenciácia zamestnania a profesie. Pri druhej sa na prestíž povolania hľadí ako na relatívne ustálenú štruktúru duchovných, či morálnych kompenzácií za výkon profesijno - pracovnej role, ktorým sa jednotlivým povolaniam dostáva od spoločnosti. V prvej súvislosti je prestíž chápaná ako indikátor sociálneho postavenia, v druhej ako miera sociálneho statusu. Prestíž povolania patrí k typom prestíže pripisovanej spoločnosti určitú pozíciu. Inými slovami, pokiaľ hodnotíme prestíž profesie hodnotíme prestíž danej pozície a nie osoby, ktorá túto pozíciu zastáva. Prestíž povolania môžeme teda definovať ako prejavovanú spoločenskú úctu a uznanie, spojenú s jednotlivými povolaniami. Všeobecne povedané, že pojem prestíž (váženosť) sa používa len v súvislosti so zamestnaním, v ostatných prípadoch hovoríme o úcte. V medzinárodnej prestížnej škále sa priraďujú všetkým profesiám body od 1 – 100. Sestry sa podľa uvedenej tabuľky v roku 2003 umiestnili v prvej tretine spolu s novinármi, konštruktérmi a agronómami, mali 44 - 47 bodov (Šindelková, 2008). *„Profesia sestry kladie veľké nároky na osobnosť sestry, ovplyvňuje nielen jej pracovný, ale aj súkromný život, ale taktiež možnosť uspokojovania jej základných životných potrieb“* (Drozdová, 2005). Osobný i pracovný život je ovplyvnený a podriadený nárokom profesie. A táto skutočnosť sa dotýka všetkých druhov jej potrieb. V sesterskej profesii sa môžu uplatniť znalosti – z medicínskych odborov, z psychológie, pedagogiky, etiky, z ošetrovateľstva, schopnosť obstáť pri vysokej fyzickej a psychickej záťaži náročnej profesie... . Profesia ponúka možnosť a kladie požiadavky na ďalšie celoživotné – i vysokoškolské vzdelávanie, spolupráci na medzinárodnej úrovni, postup v pracovnej kariére. Poskytuje vysokú mieru osobného rozvoja. Ponúka náročnú prácu s ľuďmi v manažérskych funkciách, ale aj s pacientmi v náročných životných situáciách. *„Sesterská profesia kladie veľké nároky na schopnosť flexibility a adaptability v celej šírke života sestier – v oblasti fyzickej psychickej (emočnej, poznávacej), v sociálnej ale i duchovnej. Základné potreby sestier nie sú dostatočne saturované“* (Drozdová, 2005). Osobnosť sestry vrátane všetkých psychických a iných vlastností je spätá s objektívnym prejavovaním týchto vlastností a subjektívnym uvedomením si seba samej. Takéto individuálne sebauvedomenie je súčasne základným regulátorom jej činnosti a zároveň úzko súvisí s charakterovými vlastnosťami, ako sú vzťah k ľuďom, k spoločnosti, zmysel pre spoluprácu, pomoc iným, vzťah k práci, svedomitosť, pracovitosť, zmysel pre zodpovednosť, práca s radosťou a so záujmom z vnútornej potreby, životné ciele a zásady, svetonázor – čo človek chce dosiahnuť, v čom vidí svoje životné šťastie, vzťah k sebe samej, zdravé sebavedomie, správne sebahodnotenie, vlastnosti vôle – vytrvalosť, sebaovládanie, aktivita

a iniciatíva. Pravdovravnosť a úprimnosť pomôžu sestre získať dôveru človeka. Úcta k osobnosti človeka, zachovanie jeho dôstojnosti, ľudská blízkosť, pochopenie, toto sú občas jediné liečebné prostriedky, ktoré na rozdiel od medikamentóznych, nikdy nestrácajú účinok. Z toho vyplýva poznatok, že citovo a osobnostne zrelý človek má predpoklady kvalitne vykonávať túto činnosť alebo skôr hovoríme o poslaní, pretože ošetrovateľstvo je poslaním (Skaličanová, 2000 In Zdražilová, 2010).

2. CIELE PRIESKUMU

Cieľom nášho prieskumu bolo zistiť, ako sestry vnímajú sociálny status svojej vlastnej profesie. V rámci toho sme skúmali spokojnosť sestier s ohodnotením ich práce a celkovú pracovnú spokojnosť. Zisťovali sme aké miesto podľa sestier zaujímajú v rebríčku povolaní a do akej spoločenskej triedy sa zaraďujú.

3. METODIKA PRIESKUMU

Prieskum bol realizovaný v nemocničných zariadeniach - štátnych aj neštátnych. Do skúmania sme nezaradili ambulantné a sociálne zariadenia. Pre realizáciu prieskumu bola zvolená metóda dotazníka, založená na seba posudzovaní sestier vlastnej konštrukcie. Zistené údaje boli vyhodnotené pomocou matematicko-štatistických metód.

4. CHARAKTERISTIKA SKÚMANÉHO SÚBORU

Prieskumu sa zúčastnilo 165 sestier pracujúce v nemocničných zariadeniach (99 % žien a 1 % mužov). Najviac opýtaných bolo s praxou nad 20 rokov - 38 %. S praxou od 10 – 20 rokov 36 %, za nimi nasledovali respondenti s praxou od 5 do 10 rokov 17 % a najmenej 9 % respondentov bolo s praxou menej ako 5 rokov. Priemerný vek sestier 46,58 rokov s prevahou vysokoškolského vzdelania prvého alebo druhého stupňa.

5. VÝSLEDKY PRIESKUMU

V úvode nášho zisťovania sme zisťovali celkovú spokojnosť s vlastným povolaním: 60 % sestier nie je ani spokojných ani nespokojných, 21% respondentov je spokojných a 19 % opýtaných vyjadrilo, že nie sú spokojní vo svojej práci. Myslíme si, že je to ovplyvnené aj faktom, že 92 % sestier pokladá finančné ohodnotenie za nedostačujúce a iba 6 % za dostačujúce a 1 % to nevedelo posúdiť. Sociálny status sestry vyjadrili pomocou priradenia poradového čísla povolaniu podľa jeho postavenia v spoločnosti, pričom číslo 1 znamená najvyššie postavenie v rebríčku povolaní a číslo 10 najnižšie. Ako sestry vnímajú svoj status povolania možno vidieť z nasledujúcej tabuľky.

Tabuľka 1: Status povolania

Povolanie	Celkom	
	Priemer	Poradie
Sestra/pôrodná asistentka	4,48	5.
Sekretárka	4,85	6.
Ekonómka	3,69	4.
Lekárka	1,53	1.
Učiteľka	3,18	3.
Manažérka	2,48	2.
Upratovačka	9,61	10.
Predavačka	7,63	8.
Robotníčka	8,67	9.
Úradníčka	6,17	7.

Podobne sestry hodnotili svoje postavenie v zdravotníckom tíme, kde posudzovali status jednotlivých zdravotníckych pracovníkov. Vyjadrenia sestier sú uvedené v tabuľke číslo 2.

Tabuľka 2: Status profesie sestra/pôrodná asistentka medzi zdravotníckymi pracovníkmi

Profesia	**Celkom**	
	Priemer	**Poradie**
Lekár	1	1.
Sestra/pôrodná asistentka	3,27	3.
Zdravotný záchranár	3,05	2.
Fyzioterapeut	4,78	4.
Asistent výživy	6,14	8.
Dentálny hygienik	5,9	7.
Zdravotnícky laborant	5,81	6.
RTG laborant	5,51	5.
Zdravotnícky asistent	7,3	9.
Sanitár	9,1	10.

Pri posudzovaní vnímania sestier do ktorej spoločenskej vrstvy patria sme zistili, že do strednej spoločenskej triedy sa zaradilo 55 %, do vyššej strednej triedy 24 % a do nižšej strednej vrstvy 13 %, do vyššej spoločenskej triedy sa radí 6 % a najmenej z opýtaných – celkovo 2 % sa radia do nižšej triedy. V tabuľke 3 uvádzame výpovede sestier aj podľa dĺžke ich odbornej praxe.

Tabuľka 3: Zaradenie do spoločenskej triedy

Dĺžka odbornej praxe	**Zaradenie do spoločenskej triedy**				
	Nižšia trieda	Nižšia stredná trieda	Stredná trieda	Vyššia stredná trieda	Vyššia trieda
Menej ako 5 rokov	2 %	3 %	0 %	4 %	0 %
5 – 10 rokov	0 %	3 %	10 %	0 %	4 %
10 – 20 rokov	0 %	7 %	12 %	15 %	2 %
Viac ako 20 rokov	0 %	0 %	33 %	5 %	0 %

Zmeny, ktoré nastali v ošetrovateľstve ovplyvnili status sestier v spoločnosti, ale aj v zdravotníckom tíme. Opytovali sme sa sestier, či to nejakým spôsobom zlepšilo ich postavenie, ale 73 % respondentov nepociťuje zlepšenie, zlepšenie postavenia pociťuje iba 7 % respondentov a na uvedenú otázku nevedelo odpovedať 8 %. Súčasťou zmien v ošetrovateľstve bola aj etablácia vysokoškolského vzdelávania sestier na Slovensku. Zo všetkých opýtaných až 54 % respondentov odpovedalo, že zvyšovanie vzdelania nemá vplyv na prestíž povolania sestry, 29 % si myslí, že zvyšovanie vzdelania má vplyv na prestíž povolania sestry a 17 % sa nevedeli vyjadriť. Vnímanie povolania sestry ovplyvňuje aj mediálny obraz, ktorý je vytváraný komerčne alebo na druhej strane verejným pôsobením stavovských a profesijných organizácií. Respondentmi hodnotený prínos profesijných organizácií k zvyšovaniu spoločenského postavenia sestier je nasledovný: 56 % respondentov

si myslí, že tieto organizácie neprispievajú k zvyšovaniu statusu, 26 % opýtaných, sa nevedelo vyjadriť a iba 15 % respondenti odpovedali, že profesijné organizácie sú prínosom pre sestry v ich spoločenskom postavení, 3 %, uviedli možnosť čiastočne. Rola SKSaPA je často u sestier zamieňaná s úlohou odborov. Čiastočne sa vymedzila funkcia jednotlivých organizácii po vzniku tzv. sesterských odborov. Verejnú mienku mimo osobnej skúsenosti s prácou sestry ovplyvňuje aj prezentácia práce sestry v médiách. Z celého nášho osloveného súboru sestier, iba 2 % odpovedali, že prezentácia v médiách zvyšuje ich povolania sestry, najviac 69 % tvrdí, že vôbec nezodpovedá skutočnosti. Podľa 24 % sestier prezentácia v médiách dehonestuje ich povolanie sestier a 5 % označilo, že táto prezentácia vystihuje skutočnosť. Jedno z tvrdení, ktoré sa používa na vysvetlenie, prečo povolanie sestry nemá primeraný status je aj to, že ide o ženskú profesiu. V našom skúmanom súbore sa respondentky nevedeli jednoznačne vyjadriť 37 % súhlasilo že stupeň spoločenského postavenia sestier a prestíž povolania výrazne ovplyvňuje to, že ide prevažne o ženské povolanie, 37 % nesúhlasilo a 26 % sa nevedelo vyjadriť. Ak zhrnieme naše zistenia, môžeme konštatovať, že vnímanie vlastného povolania a jeho statusu sestrami je ovplyvňovaný mnohými faktormi, ako je finančné ohodnotenie, ktoré však nie je dominujúce. Významné sú aj ďalšie fakty ako vzdelanie sestier, pracovné zaradenie ako aj dĺžka odbornej praxe.

6. ZÁVER

Profesia sestry zastáva v spoločnosti určitú pozíciu. Môžeme konštatovať, že profesia sestry sa spoločensky akceptuje a hodnotí relatívne vysoko ako dôležitá súčasť zdravotnej starostlivosti. Zvoliť si povolanie sestry znamená, slobodne sa rozhodnúť pre osobnú službu inému človeku, ktorá spočíva v poskytovaní pomoci pri ochrane, zveľaďovaní, prinavracaní zdravia. Vývoj ošetrovateľstva sa od začiatku spájal predovšetkým s ušľachtilou a obetavou prácou ženy. Na prácu sestry v súčasnom systéme zdravotnej starostlivosti sa kladú vysoké nároky. Niekedy sa s jej obetavosťou doslova ráta a presúvajú sa na ňu aj úlohy iných. Ošetrovateľské povolanie dnes vykonáva moderná žena. Spoločenské a hmotné ocenenie jej práce nie je primerané, čo neraz spôsobuje postupnú stratu motivácie, psychické a fyzické vyčerpanie a sklamanie z konkrétnej reality. V devätnástom storočí sa od sestry vyžadovali také zásady etického správania ako trpezlivosť, zhovievavosť, oddanosť, mravnosť, poctivosť, odvaha, bezúhonnosť, pravdivosť, múdrosť, spravodlivosť, obetavosť. Rola sestry sa mení. Predpokladá sa, že sestra bude zodpovedná, samostatná, bude schopná rozhodovať na základe orálnych hodnôt, bude chrániť páva pacientov a bude mať úctu k človeku ako takému. Charakteristika sestry podľa Florence Nightingale: *„... musí byť, snáď ani nemusím pripomínať, prísne striedma, ale ešte viac musí byť nábožná a oddaná žena, musí mať úctu k svojmu vlastnému povolaniu, pretože vzácny Boží dar života je často v jej rukách; musí byť dôkladná, blízka a rýchla pozorovateľka; a musí byť jemnocitnou a decentnou ženou."* (Bačišinová, 2009).

Použitá literatúra

1. ARCHALOUSOVÁ, A. *Přehled vybraných ošetřovatelských modelů.* Hradec Králove: Nucleus HK, 2005. s.71 – 72. ISBN 80 – 86225 – 33 – X.
2. BAČIŠINOVÁ, J. *Religiozita a osobnosť sestry*: dizertačná práca. Bratislava: Vysoká škola zdravotníctva a sociálnej práce sv. Alžbety v Bratislave, 2009. 144 s.
3. BOCKOVÁ, A. et al. *Náuka o spoločnosti.* 4. vydanie. Bratislava: Slovenské pedagogické nakladateľstvo, 2006. 377 s. ISBN 80-10-00873-7.
4. DERŇÁROVÁ, Ľ., ANDRAŠČÍKOVÁ, Š. *Vybrané kapitoly z manažérskej komunikácie v ošetrovateľskej praxi.* Prešov: PU, 2008. ISBN 978-80-8068-860-8.
5. DIMUNOVÁ, L., MECHÍROVÁ, V., ŠTEFKOVÁ, G. Pracovné prostredie sestier pôsobiacich v oblasti sekundárnej zdravotnej starostlivosti. In *Kvalita života a*

zdravia – vedecko – odborná konferencia s medzinárodnou účasťou, Košice, 24. – 25. 10. 2008.
6. DROZDOVÁ, R. Zátěž profese sestry. In *Teória, výskum a vzdelávanie v ošetrovateľstve.* Martin: Univerzita Komenského Bratislava a kol., 2005. ISBN 80-88866-32-4, s. 49-52.
7. FARKAŠOVÁ, D. a kol. 2005. *Ošetrovateľstvo - teória.* Martin: Osveta, 2005. ISBN 80 – 8063 – 182 – 4.
8. ŠINDELKOVÁ, J. *Prestíž povolání jako indikátor sociálního postavení*: diplomová práca. Praha : Univerzita Karlova, 2008, 67 s.
9. SLEZÁKOVÁ, Z. Súčasné možnosti ďalšieho vzdelávania. In *Sestra.* ISSN 1335-9444, 2008, roč. 7, č. 1-2, s. 14-15.
10. SOPÓCI, J. *Základy sociológie.* Bratislava : Slovenské pedagogické nakladateľstvo, 2006. 140 s. ISBN 80-1000-917-2.
11. ZDRAŽILOVÁ, A. *Status sestry v súčasnej spoločnosti* [diplomová práca]. Prešovská univerzita v Prešove: FZ PU, 2010. 98 s.

Kontaktní údaje

PhDr. Jana Cuperová, PhD.
Fakulta zdravotníckych odborov
Prešovská univerzita v Prešove
Ul. Partizánska 1
080 01 Prešov
Tel: +421 51 7562 455
email: jana.cuperova@unipo.sk

TYPOLOGIE WEBOVÝCH APLIKACÍ PRO VZDĚLÁVÁNÍ

TYPOLOGY OF WEB APPLICATIONS FOR LEARNING

Libor Klubal

Abstrakt

Webové aplikace tvoří významnou skupinu aplikací, které lze využít ve školství. Obvyklé dělení webových aplikací je tvořeno podle jejich funkce. Článek se věnuje rozdělení webových aplikací podle obvyklého druhu činnosti vykonávané během vyučování. Zavádí tak nové dělení takové skupiny aplikací a uvádí typické zástupce takových aplikací.

Klíčová slova: *webová aplikace, web 2.0, fáze vyučování*

Abstract

Web applications represent an important group of applications that can be used in education. Usual division of web applications is based on their function. The article deals with the distribution of web applications according to the usual type of activity performed during the teaching. It introduces a new division of such a group of applications and lists the typical representatives of this applications.

Key words: *web application, web 2.0, phases of teaching*

1 ÚVOD

Historie Internetu je obecně známá a pro účely tohoto příspěvku stojí za zmínku jen základní data týkající se služby webových stránek. Samotný koncept www stránek se objevuje v roce 1989 a v roce 1991 jej plně využívá CERN jako nástroje pro šíření informací směrem od autora k příjemci. První veřejně dostupný internetový prohlížeč se pak objevuje v roce 1993. Následně pak až do konce 20. století dochází k prudkému nárůstu připojených uživatelů, který se v roce 1999 pohybuje kolem čísla 200 miliónů. Stále však v této době hovoříme pouze o službě, které je primárně zaměřena na šíření informací jedním směrem, obvykle od autora obsahu (internetových stránek) k potencionálnímu čtenáři. Zpětná komunikace funguje pouze ve velmi omezené míře. I samotná tvorba stránek je vyhrazena spíše technicky zdatným uživatelům.

V roce 1999 se poprvé objevuje pojem Web 2.0 a volně přeloženo je popsán takto:

„Web, který nyní známe a který se našte v okně prohlížeče pouze jako statický obsah, je pouze zárodek webu, který terve přijde. Již nyní se začínají objevovat první záblesky Webu 2.0 a my můžeme sledovat, jak se tento zárodek vyvíjí. Web nebude chápán jako spousta obsahu s textem a obrázky, ale jako interaktivně ovládané přenosové médium. Vše pak bude […] zobrazeno na monitoru počítače, […] na televizní obrazovce, […] na panelu automobilu, […] ve vašem mobilním telefonu, […] na herní konzoli, […] a možná I na mikrovlnné troubě.“ (DiNucci, 1999). Další vlna rozšíření pojmu Web 2.0 pak nastává v roce 2004 díky konferenci pořádané společností Medialive ve spolupráci se známým autorem Timem O’Reillym. Tento autor se také pokusil o novou definici pojmu a definoval jej jako:

“Web 2.0 je revoluce podnikání v počítačovém průmyslu způsobená přesunem k chápání webu jako platformy a pokus porozumět pravidlům vedoucím k úspěchu na této nové platformě. Klíčovým mezi těmito pravidly je toto: tvořte aplikace, které budou díky síťovému

efektu s přibývajícím počtem uživatelů stále lepší. (Což jsem jinde nazval „zapřažením kolektivní inteligence.)“ (O’Reilly, 2005).

2 TYPOLOGIE WEBOVÝCH APLIKACÍ

Pro oblast školství najdeme na Internetu velké množství webových aplikací a jejich provozování je velmi často zcela bezplatné. Škole tak odpadají dodatečné náklady na platby za licence a jediným nákladem tak zůstává pouze zajištění dostatečně funkční infrastruktury. V případě mobilních dotykových zařízení je to zejména požadavek na kvalitní bezdrátovou síť.

2.1 Typologie podle Bowera

Velmi podrobnou typologii vzdělávacích aplikací provedl Matt Bower ve své studii „Deriving a typology of Web 2.0 learning technologies“. V této studii analyzoval přes 200 webových aplikací, které jsou vhodné pro využití ve školách nebo pro vzdělávací účely. Jedním z důvodů tvorby takové analýza byla dle Bowera také nízká míra využívání těchto nástrojů v reálné praxi. Dle dostupných informací (například ze závěrů ČŠI) lze vyslovit názor, že situace v českém školství je velmi podobná. I přesto, že se učitelům nabízí obrovské množství bezplatných nástrojů, které mohou přispět ke zvýšení atraktivity výuky, není jejich využívání běžné. Mat Bower svou typologii průběžně aktualizuje, avšak pro základní orientaci v existujících službách můžeme využít první (a jistě stále platnou) verzi, která dělí aplikaci do 14 kategorií takto:



Obrázek 1: Typologie webových aplikací dle Bowera

Většinu kategorií pak dále dělí na další podskupiny a aktuálně se dostává k celkem 46 kategoriím. Je však poměrně obtížné zařadit každou konkrétní aplikaci do jedné ze skupin a často se funkčnosti překrývají.

2.2 Typologie podle činností

Typologie podle Bowera je z pohledu praktického použití poměrně široce pojatá a proto by pro účely klasického školního vzdělávání bylo vhodnější zavést typologii vycházející z činností vykonávaných během vyučování.

Vlastní vyučovací proces obvykle dělíme na několik fází. Jedná se o motivaci, kdy učitel se učitel snaží žáky zaujmout ve vztahu k obsahu. Druhou fází je expozice, kdy dochází k předávání nových poznatků a vytváření základů pro dovednosti a návyky. Poslední fází je pak fixace, pomocí které dochází k opakování a upevňování vědomostí a dovedností. Samotné metody fixace dělíme podle toho, zda fixujeme vědomosti nebo dovednosti. V rámci vyučovacího procesu pak využíváme různé formy výuky (Průcha et al., 2013). Na základě tohoto dělení pak můžeme webové aplikace kategorizovat takto:



Obrázek 2: Typologie webových aplikací dle vyučovacího procesu

2.3 Nástroje pro vedení výuky

V reálné praxi školy stále převládá frontální styl výuky. Vyplývá to z pravidelných zpráv České školní inspekce, které navíc ukazují, že využívání tohoto způsobu výuky roste s věkem vzdělávaných žáků. Je to však dáno i způsobem vzdělávání na českých školách, které je více zaměřeno na vlastní obsah, než na učební strategie a kompetence. Frontální výuka je způsob vyučování, v němž učitel pracuje hromadně se všemi žáky ve třídě jednou společnou formou a se stejným obsahem činnosti (Průcha et al., 2013). Nevýhody takového způsobu vyučování jsou zřejmé a jsou popsány v literatuře – jedná se zejména o malý prostor pro diferenciaci, umožnění pasivity žáků a nízký rozvoj kompetencí k učení. Za výhody pak můžeme považovat úsporu času, názorné, srozumitelné a systematické podání učiva či eliminaci chyb při výkladu.

Z pohledu ICT bývá dnes typickou formou frontální výuky promítaná prezentace doplněná výkladem učitele. S hromadným příchodem mobilních zařízení je však možné některé z nevýhod frontálního způsobu výuky odstranit. Jedná se zejména o nízkou pasivitu žáků a dále možnost získání okamžité zpětné vazby během výkladu a případné ovlivnění dalšího probíraného obsahu. (Kostolányová, Klubal, 2015)

Typickými zástupci webových aplikací této kategorie jsou aplikace Nearpod, která nabízí možnost vytvoření interaktivní prezentace s nástroji pro získání zpětné vazby. Dále pak můžeme uvést aplikaci Classkick, díky které lze výhodně řešit rozdílné pracovní tempo jednotlivých žáků. Využití uvedených aplikací je z pohledu navržené typologie zejména ve fázi motivační a expoziční.

2.4 Evaluační nástroje

Nedílnou součástí práce pedagoga je hodnocení žáků. Hodnocení žáků má určitou forma sdělení o míře jejich úspěšnosti ve vzdělávacím procesu. Problematika různých funkcí, forem a typů hodnocení je řešena v odborné pedagogické literatuře a není předmětem tohoto textu.

Z praktického pohledu však musíme řešit zejména náročnost hodnotícího procesu pro učitele a jeho usnadnění pomocí ICT nástrojů.

Kategorie evaluačních aplikací je velmi obsáhlá a obvykle nějaký evaluační modul obsahují i nástroje z jiných kategorií. Webové aplikace zaměřené výhradně na evaluaci jsou například Socrative, Kahoot! či Quizizz. Tyto aplikace budou v rámci navržené typologie využitelné zejména ve fázi fixační.

2.5 Management školní třídy

Samotný proces řízení vyučovací hodiny je poměrně náročný z pohledu velkého množství různých aktivit učitele. Učitel žákům předává různé formy učebních materiálů (texty, odkazy, prezentace, obrazový materiál), eviduje jejich studijní výsledky, shromažďuje jejich práce a hodnotí je, zajišťuje vzájemnou komunikaci atp.

Pro tento typ aktivit existují nástroje, které souhrnně nazýváme nástroji pro digitální management třídy. Typickými zástupci takových nástrojů jsou například aplikace Google Classroom, Edmodo či Seesaw. Jedná se o poměrně komplexní nástroje a jejich celkový popis přesahuje rozsah tohoto příspěvku. V rámci navržené typologie jsou tyto aplikace vhodné zejména pro fáze expozice a fixace.

2.6 Publikační nástroje

Možnost tvorby webového obsahu již dávno neznamená složité psaní kódu a jeho následnému přenosu na Internet pomocí speciálních protokolů. S příchodem tzv. Webu 2.0 se tvorba webových stránek stala poměrně jednoduchou záležitostí a v dnešní době se jedná o činnost, které se dá svou náročností srovnat s psaním v textovém editoru.

Pro učitele znamená možnost tvorby webového obsahu výrazné zjednodušením jeho běžných činností. Je schopen postupně si vytvořit vlastní digitální portfolio učebních materiálů které jsou následně dostupné i žákům. Žáci jsou navíc na přijímání informací v digitální podobě zvyklí. Z pohledu navržené typologie se jedná zejména o oblasti epozice a motivace.

2.7 Oborově orientované aplikace

Oborově orientované aplikace najdou své místo zejména ve fázi expozice a fixace. Uvést kompletní přehled takových aplikací není v rámci tohoto příspěvku možné. Proto uvádím jen typického zástupce pro výuku cizích jazyků – Quizlet.

2.8 Univerzálně využitelné aplikace

Žádná kategorizace nemůže jednoznačně rozdělit webové aplikace podle konkrétního účelu. Proto by bylo chybou vynechat aplikace, které je možné využít ve všech částech vyučovacího procesu. Příkladem takových aplikací může být Padlet pro tvorbu elektronických nástěnek, nebo Diigo pro správu odkazů na elektronické zdroje.

3 ZÁVĚR

Web 2.0 neznamená změnu používaných technologií, ale jiný způsob využívání, o změnu přístupu k práci s Internetem. Z pohledu tvorby obsahu se již nejedná o činnost vyhrazenou pouze úzkému kruhu technicky zdatných uživatelů. Začíná se pracovat s pojmem webová aplikace, díky které je možné využívat web obousměrně.

Tento příspěvek se pokouší zavést kategorizaci webových aplikací podle činností vykonávaných během vyučování. V žádném případě se nejedná o jediný možný způsob, přináší však možnost vyhledat vhodnou aplikace pro toho, co učitel ve výuce dělá.

Použitá literatura

1. BERGMANN, Jonathan; SAMS, Aaron. *Flip your classroom: Reach every student in every class every day.* International Society for Technology in Education, 2012.
2. DINUCCI, D. (1999) *Fragmented future*. Print Magazine, 4, 32. Získáno 3/12/17 z http://darcyd.com/fragmented_future.pdf
3. EDREES M.E. *ELearning 2.0: Learning management systems readiness*, Proceedings - 2013 4th International Conference on e-Learning Best Practices in Management, Design and Development of e-Courses: Standards of Excellence and Creativity, ECONF 2013 2013, pp. 90-96.
4. KLUBAL, L., KOSTOLANYOVA, K. *Forms of the Materials Shared Between a Teacher and a Pupil*. In: Sánchez, Inmaculada Arnedillo a Pedro Isaías. Proceedings of the 12th International Conference on Mobile Learning 2016. Vilamoura, Algerve, Portugal: Iadis, s. 4. ISBN 978-989-8533-49-4. (2016)
5. KOSTOLANYOVA, K., KLUBAL, L. *iPad integration in to the current professional practice of teachers in primary and secondary schools*. Scientia iuvenis. Nitra: Constantine the Philosopher University in Nitra. s. 450-455. [2014-10-22]. ISBN 978-80-558-0650-1(2014).
6. KOSTOLANYOVA, K., KLUBAL, L. *Practicing in Mathematics Using a Tablet*. European Conference on e-Learning Conference Proceedings. ACPI, 2015. s. 714-719. ISBN 978-1-910810-70-5 (2015).
7. O'REILLY, T. *"What is Web 2.0. design patterns and business models for the next generation of software"*. Radar O'Reilly, 2005. Retrieved 3/12/17 from http://oreilly.com/web2/archive/what-is-web-20.html
8. PRUCHA, J., WALTEROVA E., MARES J., *Pedagogický slovník*. 7., Prague: Portál, ISBN 9788026204039. (2013).

Kontaktní údaje

Mgr. et Bc. Libor Klubal
Ostravská univerzita, Pedagogická fakulta
Fráni Šrámka 3, 709 00 Ostrava – Mariánské Hory
email: libor.klubal@osu.cz

PODPORA FRONTÁLNÍ VÝUKY POMOCÍ WEBOVÝCH NÁSTROJŮ

SUPPORT OF FRONTAL TEACHING USING WEB APPLICATIONS

Libor Klubal

Abstrakt

Příspěvek se věnuje možnostem využití mobilních dotykových zařízení a webových aplikací při aplikaci frontálního způsobu výuky. Popisuje dvě webové aplikace, které je možné k podpoře frontální výuky využít. Aplikace Nearpod řeší zejména zpětnou vazbu během výkladu, aplikace Classkick pak individuální tempo jednotlivých žáků.

Klíčová slova: *frontální výuka, individualizace, mobilní dotykové zařízení*

Abstract

This paper deals with the possibilities of using mobile touch devices and web applications when applying a frontal teaching method. Describes two web applications that can be used to support frontal teaching. The Nearpod application primarily addresses the feedback during the teaching. The application Classkick solve problems with individualized teaching.

Key words: *frontal teaching, individualization, mobile touch device*

1 ÚVOD

V podmínkách českého školství je ve většinové míře aplikována kolektivní frontální výuka s dominantním postavením učitele. Dle pravidelných zpráv České školní inspekce je taková organizační forma výuky používána zejména na 2. stupni základní škol a na středních školách. Při takovém způsobu výuky však zůstává většina žáků pasivních a nedochází tak k požadovanému rozvoji individuálních dovedností každého konkrétního žáka.

Velmi rychlý rozvoj v oblasti informačních technologií a v souvislosti s rozšířením mobilních dotykových zařízení mezi žáky je však možné některé z nevýhod frontálního vyučování odstranit, popřípadě minimalizovat. Vlastnictví mobilních zařízení je dnes zejména u žáků 2. stupně a středních škol zcela běžné (Kostolányová, Klubal, 2005), proto mohou školy pracovat s modelem BYOD.

2 FRONTÁLNÍ VÝUKA

Frontální výuka je charakteristická společnou prací žáků ve třídě s majoritním řízením ze strany učitele. Ten ve vyučovací hodině řídí a kontroluje veškeré aktivity žáků. Cílem je předat žákům co největší množství poznatků jednou společnou formou (Mareš, 2003). Jde o předání těch poznatků o učivu, které vyučující považuje za důležité.

Tento způsob výuky má své opodstatnění zejména ve třídách s větším množstvím žákům, kdy je z organizačního hlediska obtížné zajistit efektivní spolupráci žáků. Obvykle je také takový způsob vyučování doplněn zápisem na tabuli a nějakým způsobem vizualizace.

Je však prokázáno, že frontální způsob výuky vede k pasivitě žáků a nedochází k rozvoji samostatného myšlení (Hwang, 2014). Problémem je zejména velmi nízká míra získávání individualizované zpětné vazby od žáků. Získání zpětné vazby o probíraném učivu se

omezuje jen na obecné otázky typu „Rozuměli jste?“ atp. Tímto způsobem však není možné reálně zjistit úroveň získaných znalostí každého konkrétního žáka.

Učivo předávané frontálním způsobem je obvykle doprovázenou nějakou formou vizualizace. Může se jednat o zápis na tabuli či prezentaci pomocí prostředků výpočetní techniky. Učivo je také obvykle rozděleno do několika celků. Proto by bylo výhodné, kdyby měl vyučující možnost získat po přednesení každého celku reálný obraz toho, jak výklad žáci pochopili.

3 WEBOVÉ APLIKACE

Získání zpětné vazby může probíhat mnoha způsoby. Může se jednat o prosté dotazování vybraných žáků, hromadné hlasování na připravené otázky či vyplnění testu. Problémem však je neefektivní zpracování takto získaných výsledků, neboť přímo během vyučování není možné testy opravit a náhodné dotazování nepřinese přehled o většině žáků.

Proto je výhodné využít nástroje ICT, které mají žáci běžně k dispozici. V dnešní době se jedná zejména o mobilní dotyková zařízení, která žáci ve většinové míře vlastní. Pokud tomu tak není, může škola využít vlastní sady nějakého typu mobilního zařízení, například tabletů. Z organizačního hlediska je pro vyučujícího výhodnější použít právě mobilní zařízení, neboť není nutné žáky přesouvat do specializovaných počítačových učeben. Další výhodou mobilních zařízení je jejich okamžitá připravenost k práci. (Kostolányová, Klubal, 2014).

Jednou z forem využití mobilních zařízení je model BYOD (Neumajer, Rohlíková, Zounek, 2015). Jedná se o model, kdy k práci žáci využívají vlastní zařízení, škola pak zajistí jejich integraci do prostředí školní sítě a připojení k Internetu. V případě tohoto modelu je však problematické zajištění instalace jednotné aplikace. Může se jednat o problém rozdílných operačních systémů, nekompatibilitu konkrétních zařízení atp. Řešením mohou být webové aplikace.

Jedná se o programy, které fungují v internetovém prohlížeči a pro jejich fungování je nutné jen připojení k Internetu. Webové aplikace se na zařízení neinstalují.

Využívání webových aplikací tak přináší několik zásadních výhod:

- nezávislost na konkrétním zařízení;
- nezávislost na použitém operačním systému;
- aplikaci není nutné instalovat;
- případné aktualizace probíhají přímo na serveru bez zásahu uživatele;
- automatická záloha dat;
- nízké nároky na klientský hardware.

Za nevýhodu při využívání webových aplikací může být považován požadavek na trvalé a spolehlivé připojení k Internetu. V současné době je však 99 % českých škol vybaveno vysokorychlostní přípojkou a můžeme tak tuto nevýhodu považovat za překonanou.

4 WEBOVÉ APLIKACE PRO PODPORU FRONTÁLNÍ VÝUKY

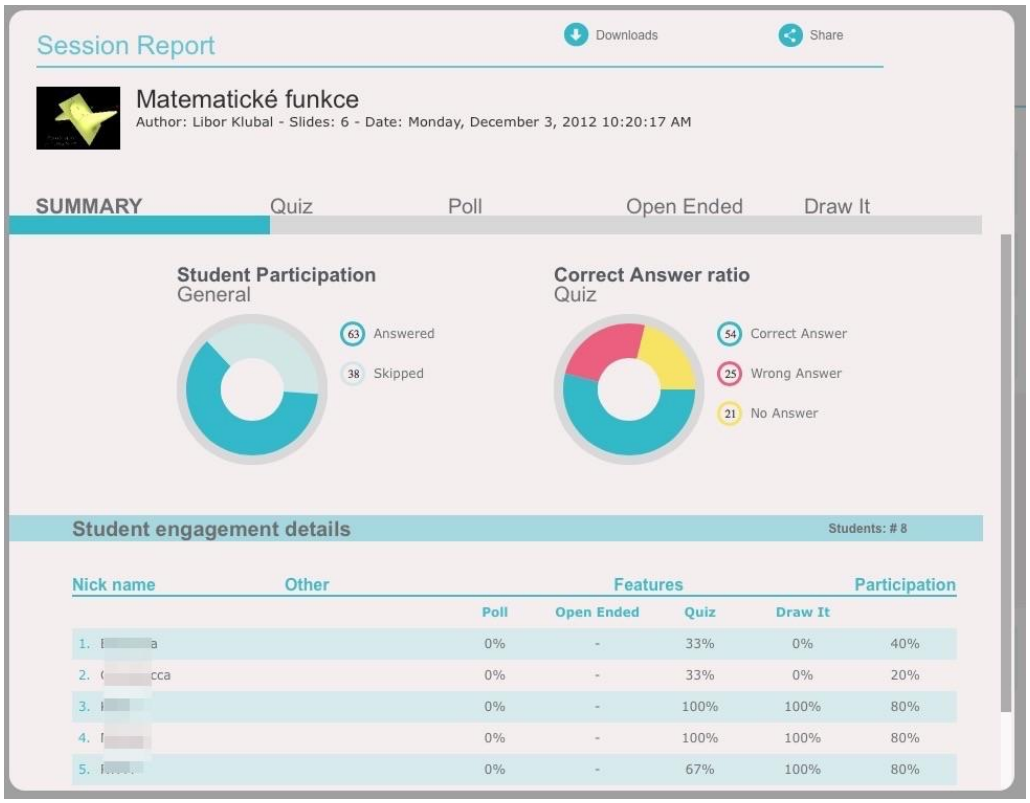
Typickým zástupcem webové aplikace pro vedení výuky je Nearpod. Jedná se o nástroj pro interaktivní prezentace s možností zpětné vazby. Aplikace je tak skutečně přímou podporou pro frontální výuku. Učitel si vytvoří klasickou prezentaci ve formě snímků, kterou pak řízeně promítá na zařízeních žáků a popřípadě i na projekční zařízení. Zásadním prvkem je ale možnost vložit mezi snímky prvky pro získání zpětné vazby. Dochází tak z aktivizaci žáků během výuky a učitel získá přehled o tom, zda je doposud probíraná látka dostatečně pochopena.

4.1 Prezentační aplikace Nearpod

Základní interaktivní prvky aplikace Nearpod jsou:

- otevřená otázka;
- anketa/hlasování;
- test z uzavřených otázek;
- otázka s možností kreslení;
- doplňování testu do polí;
- hru typu pexeso.

Aplikace je založena na klasické snímkové prezentaci, která může být vytvořena přímo ve webové aplikace. Vhodnější je však využít existující prezentaci ve formátu PPTX (popřípadě PDF nebo obrázky PNG). Nástroj PowerPoint nabízí větší možnosti editace než vlastní nástroj Nearpod, proto je vhodné vytvořit nejdříve prezentaci mimo webovou aplikaci a následně ji do aplikace naimportovat. Prezentace může být promítána jak na centrální projekční ploše, tak na zařízeních žáků. Ta jsou však využita zejména jako odpovídací zařízení.
Ve chvíli, kdy je v rámci prezentace zařazen interaktivní prvek, zobrazí se na zařízeních žáků předem připravená otázka. Na zařízení učitele je pak vidět okamžitý přehled o odpovědích žáků.



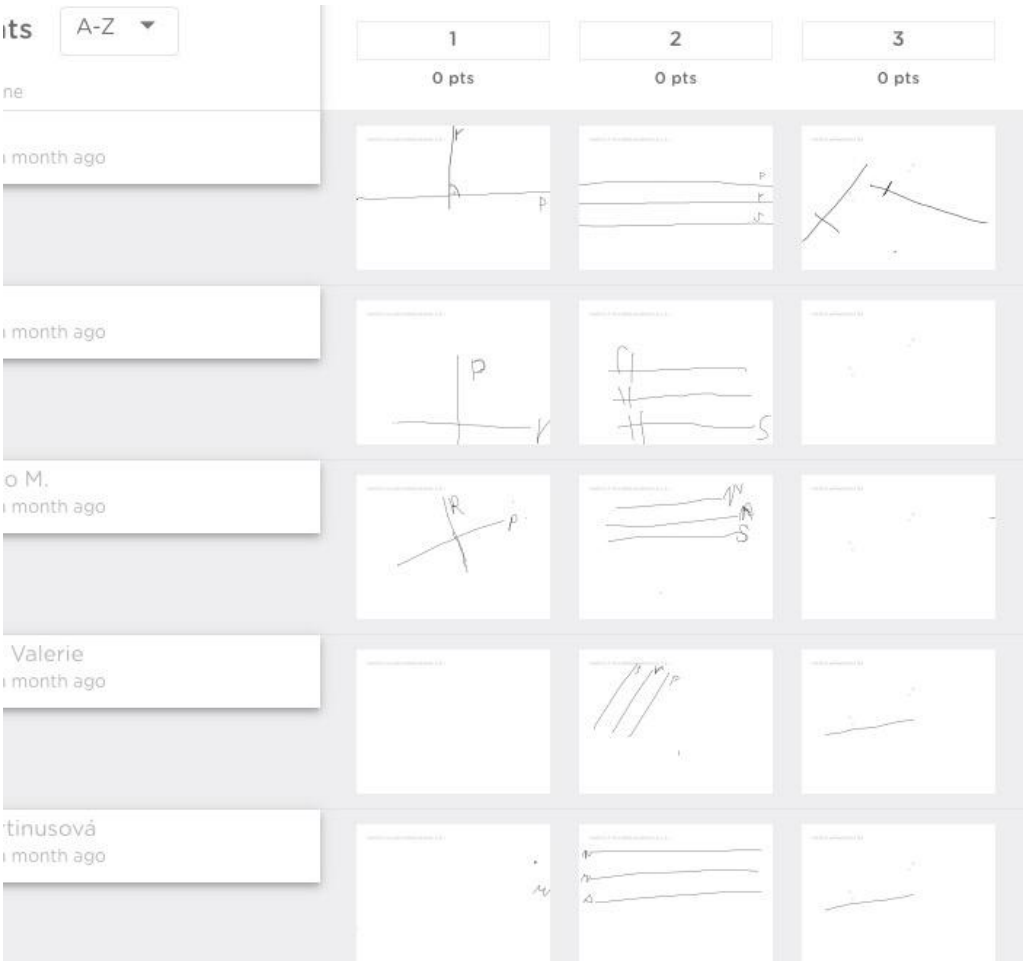
Obrázek 1: Přehled odpovědí v aplikaci Nearpod.

Pomocí tohoto nástroje je tak odstraněna jedna ze zásadních nevýhod frontálního způsobu výuky. Získáním individuálních odpovědí je zajištěna objektivita při vyhodnocení dopadu proběhlé výuky a je možné okamžitě reagovat. Je možné se vrátit k problémovým částem, rozdělit třídu na skupiny a upravit následující průběh výuky atp.

4.2 Nástroj pro podporu vlastní práce

Nástroj Classkick řeší zejména rozdílné pracovní tempo jednotlivých žáků ve třídě. Opět je vše založeno na principu snímků, které si žák prochází vlastním tempem. Do snímků může žák vpisovat poznámky (rukou či do textového pole) nebo vkládat další prvky. Učitel na svém zařízení vidí průběh výuky jednotlivých žáků včetně obsahu jejich snímků a může tak aktuálně reagovat na individuální potřeby. Může hodnotit práci žáků, může mazat či přidávat snímky, může do snímků přidávat poznámky. Žák má také možnost prostřednictvím aplikace požádat o pomoc učitele. V tomto případě se již jedná o výraznější změnu frontálního způsobu vyučování. Vlastní snímky mohou obsahovat výklad, který si však žáci čtou vlastním tempem, popřípadě je jejich procházení řízeno učitelem.

Nástroj Classkick podporuje větší množství interaktivních prvků, z nichž nejvýznamnější je možnost zápisu vlastního řešení, tedy podpora otevřených otázek. Vyučující tak může v rámci zpětné vazby získat výrazně větší množství informací, navíc je zpětná vazba získávána na základě individuálního tempa jednotlivých žáků.



Obrázek 2: Přehled zpětné vazby žáků v aplikaci Classkick.

5 ZÁVĚR

I přes to, že je frontální výuka obecně považována za neefektivní způsob výuky, je možné ji pomocí vhodných nástroj výpočetní techniky zefektivnit. Jedná se zejména o získání individuální zpětné vazby každého žáka a případná reakce na její výsledky ihned během výuky. Využitím mobilních dotykových zařízení a webových aplikací je nasazení takové

formy výrazně jednodušší. V rámci dalších výzkumů bude vhodné ověřit skutečný dopad na takovou formu frontálního vyučování.

Použitá literatura

1. HWANG, G.-J., WU, P.-H. (2014) *Applications, impacts and trends of mobile technology-enhanced learning: A review of 2008-2012 publications in selected SSCI journals.* International Journal of Mobile Learning and Organisation, 8 (2), pp. 83-95. DOi: 10.1504/IJMLO.2014.062346
2. KOSTOLÁNYOVÁ, K., KLUBAL, L. *iPad integration in to the current professional practice of teachers in primary and secondary schoolls*. Scientia iuvenis. Nitra: Constantine the Philosopher University in Nitra, 2014. s. 450-455. [2014-10-22]. ISBN 978-80-558-0650-1
3. KLUBAL, L., KOSTOLÁNYOVÁ, K. *Forms of the Materials Shared Between a Teacher and a Pupil*. In: SÁNCHEZ, Inmaculada Arnedillo a Pedro ISAÍAS. PROCEEDINGS OF THE 12th INTERNATIONAL CONFERENCE ON MOBILE LEARNING 2016. VILAMOURA, ALGARVE, PORTUGAL: Iadis, 2016, s. 4. ISBN 978-989-8533-49-4.
4. MAŇÁK, J., ŠVEC, V. *Výukové metody*. 1. vyd. Brno: Paido, 2003, 219 s. ISBN 80-731-5039-5.
5. NEUMAJER, O., ROHLÍKOVÁ, L., ZOUNEK, J.. *Učíme se s tabletem: využití mobilních technologií ve vzdělávání*. Praha: Wolters Kluwer, 2015. ISBN 978-80-7478-768-3.
6. PRUCHA, J., WALTEROVA E., MARES J., *Pedagogický slovník*. 7., Prague: Portál, ISBN 9788026204039. (2013).

Kontaktní údaje

Mgr. et Bc. Libor Klubal
Ostravská univerzita, Pedagogická fakulta
Fráni Šrámka 3, 709 00 Ostrava – Mariánské Hory
email: libor.klubal@osu.cz

SELF-CONCEPT OF GIFTED AND REGULAR PUPILS

Dominika Hošová

Abstract

In this paper, we addressed the issue of self-concept of pupils. We focused on gifted pupils and differences in self-concept between gifted and regular pupils. We emphasized the development of self-concept and the possibilities of its improvement because we believe that self-concept affects school performance and overall behaviour of pupils.

Key words: gifted pupils, regular pupils, self-concept, school, classmates

1. INTRODUCTION

The model of self-concept represents an important research topic in many areas - pedagogical, developmental and clinical and social psychology. Self-concept is often seen as a mediating factor in the achievement of goals such as fulfilment of school tasks or school performance. Nowadays, self-concept is seen as a complex, internally structured mental representation of "Self". Self-concept is a hierarchically structured cognitive structure that is formed in the process of interaction of an individual with the environment, especially with social environment.

2. SELF-CONCEPT

If we want to explain in simple terms what self-concept represents, it is basically how a person sees himself, a certain image of himself. One has a need to appear in the positive light and compares himself to others by developing self-perception. Self-concept is the benchmark used to evaluate others.

The interest of scientists (Descartes, R., James, W., Cooley, C. D., Mead, G. H., Rogers, C., Maslow, A., Freud, S., Turner, J. C., Shavelson, R. J., Higgins, E. T.) who dealt with the self-concept issues, has a long history and is one of the oldest areas of research within social science.

The first psychologist who developed the theory of the self-concept was William James in 1980. In the year of 1880 he worked on a textbook of psychology. When the book's project was completed and the publication was published in 1890, under the title Principles of Psychology, it was not just a textbook, but a monumental work in two volumes. Two years later William James also published a much shorter textbook.

William James´s most important findings in the field of self-concept include:

- The distinction between "Self" (as a factor) and "Self" as the subject of my own learning (as the content of experience).
- The constituents of the "Self" may be divided into:
  - The material Self.
  - The social Self.
  - The spiritual Self.
  - The pure Ego.
- Self-concept is formed in the process of individual interaction with the social environment.
- Self-evaluation defines success as a measure of success and subjective importance.

In their work, P. Macek, L. Šulová and V. Konečná (In Poledňová, I., 2009) state the theory of W. James and his distinction between the subjects "Self" and "Self" as the subject of their own cognition, where the subject "Self" is identified as the subject that perceives, thinks,

experiences and evaluates. Objective "Self" is always associated with a psychic presence. On the other hand, the subject "Self" is often referred to as self-concept. It includes the ideas and thoughts that a person has about himself and gives them subjective importance.
Self-concept does not only include the actual image of a person (real "Self"), but also the characteristics that the individual does not have, but wishes he or she does or thinks he should have (ideal "Self"). Rogers's theory (1995) was based on such categories. In his theory, self-concept was understood as a coherent whole, which includes not only self-understanding, but also relations to other people. The difference between Real "Self" and Ideal "Self" can be very important and can fundamentally affect our life.
If a person has retreated from a real – true "Self", it might strengthen tension and increase dissatisfaction. The best solution is that one accepts what he or she is without other conditions, despite the fact that not all of his features are considered ideal ones.
M. Jurkechová and R. Osaďan (In Fischer, S., Škoda, J., 2014) claim that "Self" is composed of self-reflection content, in social psychology collectively known as self-system. "Self" is traditionally divided into three areas: cognitive, emotional and behavioural. The behaviour content and system refer to the related terms of self-concept. It is often used in a broader sense, which also includes an emotional component that cannot be completely separated from the content of the memory, known as self-evaluation or self-esteem. In order to comprehend the process aspect, it is possible to use expressions such as self-understanding, self-control or self-assertion.
According to J. Vymětal (1996) self-concept is what one thinks of himself, how he represents himself, how he perceives himself and what he experiences. Vymětal (2003) further says that self-concept is being formed since early childhood, mainly on the basis of an assessment by adults, in adolescence very often influenced by the peers. In other words, we feel the way which we are seen by others. We accept opinions of others and might take them as our own. Therefore we can claim that self-concept is a reflection of how one thinks that other people perceive him. The basics of self-concept come from childhood, but they are changing throughout the life.
The relation to one's own body is part of the physical self-concept; we usually take care of our body because we want to look good, our physical appearance is important for us as majority of people are perceived by their physical appearance. The social self-concept includes also relationships between people. For majority of people, opinions and attitudes of others are important and play very influential role in their lives. No one can get social or personal identity by themselves. Only because of people and the environment in which we live, we are aware of our equality and, at the same time, our diversity.
Nobody was born with self-concept, but it is gradually developing over the course of our life. It is influenced by external factors such as family, friends, environment, as well as peers and school.
M. Vágnerová (2001) points out the following factors that influence the development of the self-concept of pupils:

- experience from their own successes or failures,
- experience with evaluation by a person of significant authority,
- school grades.

With the pupil's adolescence, the influence of peers grows and their impact is at the peak during his puberty. From an evolutionary point of view, the content of self-concept is a gradual increase in self-information, either based on pupil´s own judgment during observation or on the basis of feedback from others.
Determinants of the development of self-concept according to K. Balcar (1991) are:

- family environment,
- social stereotypes - mediated or from a personal experience,

- new experience,
- social interaction - is the most important one - the family is a primary social environment and can be considered as a fundamental factor.

According to Z. Helusa (2007) it is family and parents, who have a lasting and significant impact on the evolution of self-concept as they are the mediators of information between the pupil and society. By communicating with pupils, their behaviour, interests and their attitudes influence his personality and his involvement in society. Also, the level of psychological support from parents has significant influence on pupil´s integration into society and his attitudes towards others.

The development of self-concept is primarily identified in family environment. Over time, it moves towards school environment, which the pupil's self-concept corresponds with. Self-concept relation to school is professionally also known as an academic self-concept, which is one of the main components of self-concept as a whole. The study by P. Macek, L. Šulová and V. Konečná (In Poledňová, I., 2009) states that the main focus of school self-concept is based on school performance, where pupils are evaluated and their performance is compared to others.

K. Cokley (2000) defines academic self-concept as their view of their intellectual ability compared to others. Academic self-concept can also be explained as specific attitudes, feelings and perceptions of intellectual or academic skills, which represent an independent conviction of themselves as a capable person proving themselves in an academic environment.

The need for success is closely related to school self-concept. Satisfaction with this need is important for formation of pupil´s self-empathy. His success rates can have both a motivating and demotivating effect on their performance. And this feeling of difference can lead gifted pupil to perceive his talent as a social handicap (Coleman, J.L., Cross, T.L., 1988).

2.1 Self-concept of gifted pupils

The authors (Schneider, B. H., 1987; Boxtel, H. W., Mönks, F. J., 1992) state that the term of gifted pupils is often related to an inadequate self-image, which is primarily based on the feeling of their difference.

They may have an unpleasant sense of difference compared to their peers, which is closely related to an inadequate self-image. That could lead to the fact that his evaluation is based on the perception of others.

Research conducted by V. Konečná, Š. Portešová, M. Budíková and H. Koutková in the year of 2007 revealed that gifted pupils reach higher self-concept, especially in the field of educational knowledge, and their overall self-evaluation is mainly influenced by self-concept of their behaviour.

Social acceptance is very important for individuals and we can see different strategies where gifted pupils try to hide their excellence (giftedness) behind below-average performance and worsening grades at school. These strategies can lead to the so called under-performance. Some pupils show excellent potential and are considered gifted by people in their community or their surroundings, however, their actual results are average, even below average. This phenomenon is known as underachievement. Authors G. A. Davis and S. B. Rimmová (2004) consider it to be so widespread that within the American context they have referred to it as a national epidemic.

Main causes of under-performance can be found primarily in low motivation – known as disinterest. According to S. M. Reis and D. B. McCoach (2000) this pupils lack study engagement or have a very low level of self-concept. There is also a possibility that under-performance is caused by overestimating or over-demanding requirements by their parents (Dočkal, V., 1987).

D. B. McCoach and D. DelSiegle (2003) have found out that gifted pupils have higher academic self-concept than general pupils. D. G. Cornell and his colleagues (1990) examined the relationship between self-concept and social status in the group of 465 exceptionally gifted pupils aged 6-11 years. They have discovered that self-concept is an important factor that greatly influences the position of a gifted one in the group. Based on their research, the social self-concept is the most important one. Overall gifted pupils have achieved better self-concept than regular ones in the areas of school competence.
Gifted pupils are often overwhelmed by too many activities that prevent them from pursue their own interests or games. Permanent control can also lead to conflicts between parents and pupils (Rimm, S. B., 2003; Rimm, S. B., Lowe, B., 1988).
School evaluation is understood differently by each individual and therefore each pupil gives it a different value. Some pupils consider a bad grade as something dramatic and it might affect their self-confidence in the specific area of their study. Others can take it as a motivation factor for better results in the future, but some pupils could lose their confidence in their own capabilities. Majority of gifted pupils are perfectionists, they have too many demands on themselves and only a small hint of failure can cause them to crash.

2.2 Developing Self-concept

As we have already mentioned, from a developmental perspective, the content of self-concept is characterized by a gradual increase in self-information. This is obtained on the basis of a feedback from the environment or from his own judgment in the course of observation of his own activities or mental states. For pupils, the structure of self-concept depends on the information available to them and their ability to process it.
When pupils are asked to describe themselves, they don't focus on their own external characteristics (such as appearance), but more and more on their own psychological characteristics and competences. At the age of seven, a pupil begins to realize the stability of his own personality within the time frame. This experience allows him to compare with others and creates a more stable level of self-assessment. Ability to compare with others makes self-evaluation more vulnerable, especially in areas where pupils are valuated (school abilities, physical abilities and popularity among classmates).
As specified by S. Koťátková (2000), if a pupil doesn't have a sufficiently developed self-concept, he can't be seen as part of the group.
A pupil, whose self-concept does not reach the expected level (expected at a certain age), appears to be socially immature and can't be perceived as part of the group. In such a case he could consider himself as a centre of attention. According to M. Vágnerová (2001), the immaturity of self-concept can manifest itself as propensity tendencies or an inclination to praise. Such a pupil has not yet passed the social maturity stage of the previous period and the teacher has to find advisable methods that match his needs. Therefore, it is necessary to calmly and patiently allow him to understand others and to lead him to respect needs of others. It is also necessary to adequately respond to the pupil´s immaturity that can be manifested by egotism and emotional reactions in communication. Gifted pupils may appear to be socially immature, which is based on their specific characteristics. They often face problems in social and emotional spheres as well as they like to draw attention to themselves. Therefore, teachers should be prepared and able to respond appropriately to positively develop the self-concept of gifted pupils. The pupil will advance in the learning process only if it is led by a teacher who is interested in personal growth and constant development.
S. Koťátková (2000) sets out the specific conditions for developing the pupil's competence related to self-concept and self-evaluation:

- meeting with peers,
- creativity that is in line with his interests,

- working with other pupils to discover their role and position in the group,
- the space to express your feelings so that the pupil understands his emotional state as part of the understanding and survival of the world,
- allow the pupil to express consent and disagreement with himself,
- to show and to help find natural talents and abilities, develop them according to pupils interest and possibilities,
- let the pupil bear responsibility for his action, no to solve his problems,
- balance between positive and negative behavioural responses.

The self-development of self-concept is manifested by positive self-evaluation, well known as a self-check. The ability to concentrate on tasks, school duties and long-term orientation are also within the scope of self-development of self-concept. The pupil with such self-concept is not afraid to commit an error and goes into action without fear of failure. He is also able to experience positive emotions as pleasure from activities as well as from their outcome. Each teacher should properly develop the self-propensity of the pupil. They should have the opportunity to express themselves, express their attitudes, opinions and feelings.

If a pupil has a negative opinion about himself and a negative attitude towards himself, then it may induce expression of the inability to solve tasks in the activity. Anyone who is considered to be competent in the field will strive for good performance; on the contrary, a person who considers himself incompetent, will not be able to do a good job at all and might try to avoid such task. By avoiding it, his abilities will not improve and it will only point out his incompetence. Failure confirms negative self-concept.

Based on the author R. J. Shavelson (1976), who presented one of the possible representations of the hierarchical organization of self-concept, we divide self-concept into four components:

- academic self-concept,
- social self-concept,
- emotional self-concept,
- physical self-concept.

Academic self-concept is the perception and evaluation that a pupil has about his academic abilities (study of languages, history, mathematics, and science). The possibilities of progress in this area can be seen in the development and support of activities that the pupil is interested in and develops his internal motivation for learning.

J. Mudrák (2015) in his book points out that the development of gifted pupils is determined not only by the successful development of their abilities, but also by the successful development of their motivation. Research by scholars (Bandura, A., 2006; Junge, M., Dretzke, B., 1995; Parajes, F., 1996; Schunk, D.H., Parajes, F., 2005) shows that fundamental decisions made by young people regarding their educational and professional roles are determined by motivational beliefs rather than by their objective capabilities. Bandura (2006) considers the motivational aspect of development to be a key aspect in the process of adolescence. In the course of adolescence, gifted pupils become actors of their own education and therefore it is necessary to acquire self-regulatory skills. These include planning and estimating impacts on their own actions.

Social self-concept is how we are seen or perceived by others. The most important perception is the one we receive from the most important people in our life together with the one from our peers. Social acceptance is an important part of our life and it has the greatest importance during the puberty. Every pupil needs to know that he belongs somewhere and that he has a certain role and place in the society. Social "Self" determines and regulates what behaviour is moral, reasonable, and honest and how a person is presented to the public. Social "Self" is also the recognition he or she gets from her partners, pupil from his classmates in school. Every pupil should have a social competence that helps him manage and influence his social

world. This model includes the ability to integrate thinking, emotion and behaviour to effectively cope with the requirements and rules of the social environment.
Part of the development of social competence in pupils' school is (according to the Program for the Development of Social Competencies of Students: AKÍ SME? from year 2006):

- ability to create and maintain relationships,
- successful solving social problems,
- effective communication in social relationships and different situations,
- ability to make any decisions,
- constructive resolution of conflicts,
- effective application of basic social skills (empathy, assertiveness),
- self-control and self-monitoring of his own behaviour and its impact on others,
- adequate self-empathy, identity, perception of self-competence,
- ability to provide and obtain social support,
- ability to differentiate between socially positive and socially negative influences of peer groups.

Emotional self-concept represents our emotional states and personal feelings. It is important for every pupil to have a confidential environment where he will not be afraid to express his views and ideas, an environment where he can talk about his problems and to be able to find respect. A teacher should be a person that can provide needed understanding and support as well as to create a positive classroom environment.
Physical self-concept consists of the image of his physical abilities and his own physical appearance. Young people, especially at the age of adolescence, judge their physical appearance very strictly. They are characterized by a high sensitivity in the perception and assessment of their own body. The perception of his own body originates from the inside of a person, rather than from the surroundings. Principally girls are very critical to perception of their body and they perceive the critique of the surroundings in a very sensitive manner. Physical changes may give rise to dissatisfaction with their physical appearance and the related contradiction between reality and the ideal of the human body that is historically and culturally accepted in the society. In this context M. Nakonečný (2003) emphasizes that every individual creates a certain image of his body. That is very closely related to a certain degree of satisfaction or dissatisfaction with his own physical appearance. Therefore, physical appearance is considered to be an important source of self-confidence, or vice versa, a sense of physical inadequacy. The teacher should encourage them to engage in sporting activities and he should also teach them not to judge others on their physical appearance. It is essential that pupils learn how to create a positive relationship to their own body, although it may not be according to our ideals.

3. CONCLUSION

Based on analysed theories, we can declare that self-concept is a certain perception of "Self" and has a great impact on the activity, interpersonal relationships, and may not even be objective. A person, who considers himself as an important one, is able to perform well, is not afraid of new tasks and his work is usually effective and of high quality. On the other hand, a person, who is not satisfied with himself, doubts his own abilities and is afraid of new assignments. That might cause that the quality of work does not match his real abilities.
As stated in various studies (Foglová, L., 2017; Konečná, V., 2010, Mudrák, J., 2015) the crucial factors for the formation of self-concept within the school environment are the personality of the teacher, class and school environments, school grades, teaching materials and others. In school age, the self-image is quite unstable and can change quite a lot. Favourable judgments of teachers lead to a positive growth of pupil´s self-concept. Another very important factor that forms self-concept is the group of peers, whose importance grows

with age and dominates in the period of puberty. The acceptance by peers is a prerequisite for inclusion in the world of adults, on the path to independence and maturity.

Sources

1. BALCAR, K. 1991. *Úvod do studia psychologie osobnosti*. Chrudim: MACH. 217 s.
2. BANDURA, A. 2006. Adolescent development from an agentic perspective. In *Parajes. Scottsdale,* IAP. p. 1-43.
3. BOXTEL, H. W., MÖNKS, F. J. 1992. General, social and academic self-concepts of gifted adolescents. In *Journal of Youth and Adolescence*, vol 21, no 2. p. 367-396.
4. COKLEY, K. 2000. An Investigation of Academic Self-Concept and Its Relationship to Academic Achievement in African American College Students. In *Journal of Black Psychology*, vol 26, no 2, p. 148-164.
5. COLEMAN, L. J., CROSS, T. L. 1988. Is being gifted a social handicap? In *Journal for the Education of the Gifted*, vol 11, p. 41-56.
6. CORNELL, D. G., PELTON, G. M., BASSIN, L. E., LANDRUM, M., RAMSAY, S. G., COOLEY, M. R., LYNCH, K. A., HAMRICH, E. 1990. Self.concept and peer status among gifted program youth. In *Journal of Educational Psychology,* vol 82, no 3, p. 456-463.
7. DAVIS, G. A., RIMM, S. B. 2004. Education of the gifted and talented. New York, Pearson Education. 592 p. ISBN-10: 0135056071.
8. DOBEŠ, M., FEDÁKOVÁ, D., a kol. 2006. AKÍ SME? Program na rozvoj sociálnych kompetencií žiakov. Košice: SVÚ SAV. 161 s. ISBN 80-969628-1-7.
9. DOČKAL, V. a kol. 1987. *Psychológia nadania*. Bratislava: SPN, 184 s.
10. FOGLOVÁ, L. 2017. Self - efficacy a subjektívna pohoda ako determinanty školskej úspešnosti žiakov. Dizertačná práca. PF, UKF Nitra.
11. HELUS, Z. 2007. *Sociální psychologie pro pedagogy*. Praha: Grada. 280 s. ISBN 978-80-247-1168-3.
12. JAMES, W. 1890. *The Principles of Psychology*. United States: Henry Holt and Company. 1 393 s.
13. JAMES, W. 1890. *The Self And Its Selves*. [online]. [Cit. 05.12.2017]. http://mills-soc116.wikidot.com/notes:james-self-and-its-selves.
14. JUNGE, M., DRETZKE, B. 1995. Mathematical self-efficacy and gender differences in gifted/talented adolescents. In *Gifted Child Quarterly*, vol 39, p. 22-26.
15. KONEČNÁ, V. 2010. *Sebepojetí a sebehodnocení rozumově nadaných dětí*. Brno: Tisk MSD, spol. s. r. o. 215 s. ISBN 978-80-210-5325-0.
16. KONEČNÁ, V., PORTEŠOVÁ, Š., BUDÍKOVÁ, M., KOUTKOVÁ, H. 2007. Sebepojetí rozumově nadaných dětí. In *Československá psychologie*, roč. 51, č. 2, s. 105-116.
17. KOŤÁTKOVÁ, S. 2000. Kompetence dítěte předškolního věku a jejich souvislost se sebepojetím a sebeuplatněním dítěte, jeho socializací, interakcí a komunikací, In *Pedagogika*, roč. XLX, s. 56-64.
18. JURKECHOVÁ, M., OSAĎAN, R. 2014. In Fischer, J., Škoda, J. *Sociální patologie: Závažné sociálně patologické jevy, příčiny, prevence, možnosti řešení.* Praha: Grada Publishing. 232 s. ISBN 978-80-247-5046-0.
19. MACEK, P., ŠULOVÁ L., KONEČNÁ, V. 2009. Proměny vztahu k sobě v průběhu dětství a dospívání. In *Sebepojetí dětí a dospívajících v kontextu školy*. 1. vyd. Brno: Muni press. ISBN 978-80-210-5085-3, s. 7- 25.
20. MCCOACH, D. B., DELSIEGLE, D. 2003. The structure and function of academic self-concept in gifted and general education students. In *Roeper Review*, vol 25, no 2, p. 61-66.

21. MUDRÁK, J. 2015. *Nadané děti a jejich rozvoj*. Praha: Grada Publishing, 176 s. ISBN 978-80-247-5089-7.
22. NÁKONEČNÝ, M. 2003. *Úvod do psychologie*. Praha: Academia. 508 s. ISBN 80-200-0993-0.
23. PARAJES, F. 1996. Self-efficacy and mathematical problem-solving of gifted students. In *Contemporary Educational Psychology*, vol 21, p. 325-344.
24. REIS, S. M., MCCOACH, D. B. 2000. The underachievement of gifted students: What do we know and where do we go? In *Gifted Child Quarterly*, vol 44, no 3, p. 152-170.
25. RIMM, S. B. 2003. Underachievement: A national epidemic. In Handbook of gifted education. p. 424-443. New York, Pearson Education.
26. RIMM, S. B., LOWE, B. 1988. Family environments of underachieving gifted students. In *Gifted Child Quarterly*, vol 32, NO 4, s. 353-359.
27. ROGERS, C. R. 1995. A Way of Being. New York: Houghton Mifflin Harcourt. 395 s. ISBN 0-395-75530-1.
28. SHAVELSON, R. J., HUBNER, J. J., STANTON, G. C. 1976. Self-Concept: Validation of Construct Interpretations. In *Review of Educational Research*, vol 46, no 3, p. 407-441.
29. SCHNEIDER, B. H. 1987. *The gifted child in peer group perspective*. New York: Springer-Verlag.
30. SCHUNK, D. H., PARAJES, F. 2005. Competence Perceptions and Academic Funcrioning. In *Dweck, Handbook of Competence and Motivation*, p. 85-104.
31. VÁGNEROVÁ, M. 2001. *Kognitivní a sociální psychologie žáka základní školy*. Praha: Karolinum. 306 s. ISBN 8024601818.
32. VYMĚTAL, J. 1996. *Rogersovská psychoterapie*. Praha: Český spisovatel. 208 s.
33. VYMĚTAL, J. 2003. *Úvod do psychoterapie*. Praha: Grada Publishing. 264 s. ISBN 8024702533.

This work was supported by the Slovak Research and Development Agency under the contract No. APVV-15-0368.

Contact

Mgr. Dominika Hošová
Constantine the Philosopher University in Nitra, Faculty of Education
Dražovska cesta 4
949 74 Nitra
Slovak Republic
Phone: +421 37 6408 222
Email: dominika.hosova@ukf.sk
Supervisor: doc. PaedDr. Jana Duchovičová, PhD.

EDUCATION AND KNOWLEDGE OF PATIENTS WITH TYPE 2 DIABETES MELLITUS

Ľudmila Majerníková, Ľubica Derňárová, Andrea Šuličová, Jana Cinová, Tatiana Šantová, Zuzana Novotná

Abstract

Education of diabetic patients is an integral part of effective treatment. In the presented work we compared the knowledge level of diabetes self-care the two groups of patient with diabetes mellitus type 2 with insulin treatment in depending on the implemented education on disease and its treatment by professionals. The sample included 524 patients with type 2 diabetes mellitus, treated with insulin in Easter Slovakia. We used a standardized questionnaire Diabetes Knowledge Test and standardized questionnaire Diabetes Care Profile (section - Education and guidance provided in section Diet) for implementing the education of health professionals, we divided the entire set of respondents into two groups of patients (with realized education and without education). The knowledge level related to diabetic self-care of compared groups of patients differed significantly in favor of the respondents realized through education by professionals. However, the overall knowledge score of educated patients (average success of 54 %) is not considered as optimal. Patient who received diabetes education scored higher than patients who did not (in all areas $p < 0.001$). Proper realization of education affects knowledge, skills and attitudes to the disease in diabetics. It is therefore necessary that the structured education becomes a part of a treatment for each diabetic. Education of the patient with diabetes controls their disease and there are extensive processes which involve more than just help patients to monitor blood glucose levels and increasing compliance with therapy.

Key words: *education, diabetes mellitus, diabetic, knowledge, nursing*

1 INTRODUCTION

Social changes in Slovakia in the last two decades have brought also changes in the philosophy of thought and action of people. With the changing philosophy of health, the focus is the active element in the care of their own health nurses are prepared for future implementation of health education as one of the important activities [1].

Type 2 diabetes mellitus (T2DM) is increasingly common, primarily because of increases in the prevalence of a sedentary lifestyle and obesity in world and in the Slovakia too (In 2013 it was registered more than 340,400 diabetics). T2DM can be prevented by interventions that affect the lifestyles of subjects at high risk for the disease is not known. Nursing has important role in diabetic education. Diabetes mellitus issue is very serious and the relationship is a challenge in terms of the strategic objectives of the WHO Health for All in the 21st century [2].

Diabetes mellitus is a chronically disease. The patients should by control progress and complication theirs illness. The diabetes education is a significant part of comprehensive treatment of diabetics. Diabetic patient becomes a partner in treatment and we assume increasing responsibility for their health, which is in accordance with the Saint Vincent's Declaration - documents the rights and obligations of diabetics. Patient education is the cornerstone of care for patient with T2DM. Knowledge of diabetes forms are basis for

informed decisions about diet, exercise, weight control, blood glucose monitoring, use of medication, foot and eye care and control of macrovascular risk factors [3].

2 AIM OF STUDY

The aim of the study was to compare the knowledge level of diabetes self-care in the two groups of patient with T2DM used insulin treatment in depending on the implemented education on disease and its treatment by professionals in Easter Slovakia.

3 MATERIAL AND METHODS

We conducted an observational study of 524 insulin-treated adults with T2DM. All subjects completed the University of Michigan Diabetes Research and Training Centre Diabetes Knowledge Test [4]. The Diabetes knowledge test (DKT) is also a short test (23 items depending on whether the patient is using insulin). As such, it can be administered quickly to patients and easily interpreted by a health professional. The fact that the DKT is a single test is both a strength and a weakness. A single test allows users to make comparisons among different patient groups [4]. For statistical comparison of selected indicators group divided according to the replies Diabetes Care Profile section [5] - education and provision of advice and diet section, for implementing the education of health workers into two groups of patients (with realized education and without education). We recruited patients with type 2 diabetes, who met the following inclusion criteria: 1) adult age; 2) current medical record diagnosis of type 2 diabetes; 3) insulin treatment. Assessments were conducted between September, 2015 and January 2016 in Easter Slovakia in two populations completed the test Diabetes Knowledge Test (DKT). In one population (education patients - EP), patients received diabetes education about diet, exercise, weight control, blood glucose monitoring, use of medication, foot and eye care and diabetic – self - management. In second population (not education patients - NP), patients don't receive diabetes education by health person.

The member of the health team does not develop in line with the trend, which is the increase in diabetics and patients at risk for this disease in Slovakia. Education of the patient with diabetes control their disease is an extensive process that involves much more than just help patients to monitor blood glucose levels and increase compliance with therapy. Although the quality of health care as well as medical and nursing has increased in recent years, for many people has no effect on the individual control of their health and disease. Patient with DM has key role in the management of own disease. That is why education of the patient is a major challenge for improving the control of DM. Management of the disease by the patient is very important, but given the chronic course of the disease very difficult. It is not surprising that many patients have difficulty to accept and cope with all the limitations that they bring disease, which is directly reflected in the lack of disease control [6].

In terms of adverse developments in the number of patients with DM and the number of experts unclear guidelines in the field of education in Slovakia (education in practice does not take place through a structured education), we selected items using a questionnaire divided the patients into two groups of compared. Respondents across our sample, we categorized into two groups of patients – education patients (EP) and not – education patients (NP). The distribution was carried out according to respondents' answers in the section - education / counseling provided (O1 - O4) and Diet (O1, O3, O4, O5). Questions were directed on education by health professionals (doctor, nurse, nutrition assistant/ diet nurse) in foot care, exercise regimen, diet, importance of compliance with diet, diet plan, weighing / measuring mealtimes, use of menus for diabetics recommended a formal method of education through repeated meetings with professionals / experts, who led the training.

In terms of education on foot care in the first group of respondents, EP 100% of respondents answered positively to this question, while NP group answered in the majority - 98.5% negative. The exercise regimen was given advice to nearly 96% of the NP group and EP approximately 91% responded negatively to the item. The problem diabetic diet, its importance as well as ways to facilitate their compliance and specify the admission of individual food components through menus, measurement, or weighting was EP versus NP, who for most of the questions answered negatively. Under the formal education of repeated training sessions by experts in the field of education are answered positively EP - 75% NP and 96% negative. Based on these findings, we have the whole sample of respondents were divided into two sets of EP is a total of 232, total number of NP is the 179.

Descriptive statistics were used to characterize subjects in the derivation set. Continuous variables were expressed as mean ± standard deviation (SD). Univariate analysis was used on the derivation set to examine the relationship between the diabetes knowledge score and a variety of education level, duration of disease. For the statistical processing of our data we used SPSS 15.0 software. For statistical comparison of observed groups, we used the t - test and F - test.

4 RESULTS

The mean age of the study group was 62.3±11.26 (30-81), 62.2±11.26 for EP and 62.4 ±11.12 NP. The majority of the responds were female 59.2 %. The average duration of illness of patients was 11.12 ± 7.17 years (EP – 11.1 ± 7.17, NP – 10.8 ± 6.72) (table 1).

Table 1 Distribution of respondents

	EDUCATED PATIENT		**NOT EDUCATED PATIENTS**	
	N (232)	%	N (179)	%
Gender: **Male** **Female**	 94 128	 40% 60%	 68 111	 38% 62%
Education **Primary school graduate or less** **Secondary school graduate or more**	 69 162	 30% 70%	 52 127	 29% 71%
Age (A±SD)	62.8±11.26		63.1 ±11.12	
Duration of diabetes mellitus (A±SD)	11.2 ±7.17		10.8 ±6.72	
HbA_1C (A±SD)	8.84±1.54		8.85±2.0	*p=0.72*
BMI (A±SD)	29.93±5.30		30.42±4.59	p=0.52

N – number, A – average, SD – standard deviation

Table 2 Knowledge test results

Subject area	EP	NP	p
Diet	54.30 %	38.30 %	0.000***
Prevention and treatment hyperglycemia	44.37 %	37.18 %	0.000***
Prevention and treatment hypoglycemia	41.10 %	25.27 %	0.000***
Prevention chronicle complication	68.75 %	39.27 %	0.000***
Selfmonitoring	77.50 %	56.58 %	0.000***
Overall success	54 %	36 %	0.000***

Key to statistical significance of results *p < .05; ** p < .01; *** p < .001

Overall, the results of our test knowledge in our sample presented in table 2, where a group of patients achieved 60% EP, NP only 36% of success and overall success of our entire sample ranged at 49 %. In our study in terms of success in the DKT individuals have achieved the best score EP - over 90% of correct answers have 4% of respondents, 89-80% of correct answers 10% of respondents, 79–70% - 24% of respondents, 69– 60% of successful responses - 16% of respondents, 59–50% - 22% of respondents, 49–40% of administrative items reached 15%, 30-39% of patients achieved 6% and less than 30% of successful responses were recorded in 4% of the EP.

Different results were observed in NP. The best success was recorded from 69-60% of successful responses which reached 17% of respondents, 59 –50% - 28% of respondents, 49 – 40% of administrative items reached 6%, 30-39% of patients achieved 18% and less than 30% successful responses throughout the knowledge test was recorded in 32% NP.

In terms of managing various areas of diabetic care respondents in the EP group, the best answer to questions related to selfmonitoring and its contribution to maintaining optimal blood glucose levels (77.5% successful response), over 54% successful answers questions of questionnaire DKP achieved EP in issue of prevention of chronic complications and foot care. The different score was recorded in this group of patients in the prevention and treatment of hyperglycemia and hypoglycemia.

Group of NP did not exceed 60% in one any area. The best score NP achieved in selfmonitoring scope similar like EP. NP in other areas of diabetic care not exceed the success of the responses more than 50%, indicating a low knowledge level. All results were statistically significant comparison the level *** p <.001.

In terms of duration of disease, we found statistically significant differences in the groups of respondents depending on the implemented education. The best average score achieved the group of EP with duration of disease from 10 to 15 years. In the NP group were respondents who had diabetes for more than 15 years. Statistically significant differences between women and men in these groups we did not (EP p = 0.51, NP p = 0.43).

Table 3 Results of the level of knowledge in terms of duration of disease

Duration of disease	EP average score	NP average score	p
1 – 5 years	12.48 ±2.98	7.8±5.6	0.000***
6 – 10 years	10.59±5.01	5.95±3.99	0.000***
10 – 15 years	14.24±3.39	4.5±1.00	0.000***
16 and more	13.19±3.78	8.00±5.50	0.002**

Key to statistical significance of results *p < .05; ** p < .01; *** p < .001

5 DISCUSSION

Diabetes is rapidly becoming the scourge of the modern world. Increasing number of diabetics is linked to the aging population, stricter diagnostic criteria and, in particular, to the pandemic of obesity and metabolic syndrome [7]. In 2014, there were 339 419 registered patients with diabetes in Slovakia. As it is clear from the statistical data, number of diabetological ambulances and health care staff in the Slovak Republic did not develop in conformity with the high growth of diabetic patients and patients at risk of diabetes disease [6, 8]. In addition, the study revealed [7 that nurses mentioned the lack of time as the biggest problem in education of patients with DM. Other problems in the education of patients defined by nurses were the lack of equipment and educational standards.

In research Murata et al. [3], which aimed to describe the clinical, psychological and social factors affecting people's knowledge during the present declaration and diabetes mellitus type 2, the overall result achieved score DTK authors like poor (64.9% ± 15.3% correct). Compared with the results of the study Murata et al. and our results - our respondents have weaker knowledge in various fields as in the present research, while only in one area of investigation by our respondents achieved a higher score (prevention of chronic complications). Overall, our respondents in the EP and NP groups showed a slight knowledge of the diabetic self - care (table 4). Only 6% of respondents understand the objectives self-diabetic care. Education respondents achieved higher scores in knowledge questions about foot care, training and worse scores on hypoglycemia. Respondents in the U.S. study, the authors have substantial gaps in knowledge of diabetes, which could jeopardize their ability to provide diabetic care. Between education and not education patients were significant differences in the knowledge score in each area.

Table 4 Comparison of the results of the level of knowledge to the study Murata et al. with the results of our research

Area of knowledge	EP	NP	IP	NP
diabetic diet	54.30%	38.30%	61 %	53.8 %
prevention and treatment of hyperglycemia	44.37%	37.18%	61 %	53.8 %
prevention and treatment of hypoglycemia	41.10%	25.27%		
prevention of chronic complications	68.75%	39.27%	62,9	62.1
foot care	65.70%	44%	100 %	91.2 %
benefits of selfmonitoring	77.50%	56.58%	Not Specified	Not Specified

6 CONCLUSION

The modern concepts of nursing practice to offer nurses the possibility of a teacher in the position. This operation requires knowledge of psychology, didactics and education. Education of diabetic patients is not only put information about the method of treatment. Nurse is important member of the educational team to prepare a client/patient to be able to active manage own treatment according to the actual conditions and situations. Educations, family status, membership in a club for diabetics, group education form were confirmed as determinants of willingness and motivation to learn. Dimensions of performed systematic assessment in the educational process were proved as important factors that influence learning. Behaviors activity change in diabetic patients. Data of research indicate that providing patients with solid knowledge base has a significant impact of therapy outcomes.

Sources

1. Magurova D., Majernikova L. Edukácia a edukačný proces. Martin: Osveta, 2009. 156 s. ISBN 97-8808063-3264.
2. Činnosť diabetologických ambulancií 2014. Edícia Zdravotnícka štatistika. Bratislava: Národné centrum zdravotníckych informácií. 2014. p. 19.
3. Murata GH et al. Factors affecting diabetes knowledge in type 2 diabetic veterans. *Diabetologia* 2003;46(8):1170-1178.
4. Fitzgerald JT et al. The Reliability and Validity of a Brief Diabetes Knowledge Test. Diabetes Care. 1998; 21(5): 706-710. http://dx.doi.org/10.2337/diacare.21.5.706
5. Fitzgerald JT et al."The Reliability of the Diabetes Care Profile for African Americans," *Evaluation and the Health Professions*, 1998; 21(1): 52-65.
6. Sedláková D. Diabetes mellitus: nástojčivá výzva 21. storočia. *Medical practice*, 2006,10(2):6-10.
7. Majerníková Ľ. Vplyv edukácie prostredníctvom profesionálov na vedomostnú úroveň diabetikov 2. typu. *Ošetřovatelství a porodní asistence* 2011;2(1):171-178.
8. Magurova D., Majernikova L., Hloch S., Tozan H., Goztepe K. Knowlege of diabetes of diabetes in patients with type 2 diabetes on insulin therapy from eastern Slovakia. *Diabetologia Croatica*, 2012, 41(3):95 – 102.
9. MENSING, C. et al. National standards for diabetes self-management education. In Diabetes Care, vol. 23, p. 682–689, 2000. ISSN 0149-5992.
10. POLONSKY, WH., FISHER, L., SCHIKMAN, CH., et al. Structured self-monitoring of blood glucose significantly reduces A1C levels in poorly controlled, noninsulin-treated type 2 diabetes. Diab Care, 2011, 34, p. 262–267.
11. SEAQUIST, RE., MILLER, ME., BONDS, DE., et al. The impact of frequent and unrecognized hypoglycemia on mortality in the ACCORD Study. Diab Care, 2012, 35, p. 409–414.
12. VON KORFF, M. et al. Collaborative management of chronic illness. In Annals of Internal Medicine; vol. 27, p. 1097–102, 1997. ISSN 0003-4819.
13. Hudáková, A. et al. Geriatrické syndrómy ako prediktory ošetrovateľstva v geriatrii. Prešovská univerzita v Prešove, 2016. 192 s. ISBN978-80-555-1749-0.

Contact

PhDr. Ľudmila Majerníková, PhD.
ludmila.majernikova@unipo.sk
Faculty of Health Care, University of Presov, Presov
Partizánska 1 Prešov
04001 Prešov Slovakia

SLOVOTVORBA AKO PROSTRIEDOK STIMULÁCIE KOGNITÍVNYCH FUNKCIÍ DIEŤAŤA

WORD-FORMATION AS A TOOL FOR STIMULATING COGNITIVE FUNCTIONS OF CHILD

Eva Gogová

Abstrakt

Príspevok predstavuje čiastkové výsledky výskumu, ktorý poukázal na možnosti stimulácie kognitívnych funkcií dieťaťa prostredníctvom slovotvorby. Východiskom sa stali lingvistické a lingvodidaktické výskumy, ktoré potvrdili dôležitú úlohu slovotvorby v jazykovom systéme slovenčiny, ale aj v rečovom a kognitívnom vývine dieťaťa. Opierajúc sa o tieto zistenia, boli vytvorené edukačné jednotky, obsahujúce slovotvorné aktivity zamerané nielen na rozvíjanie jazykových schopností dieťaťa, ale aj na stimulovanie jeho kognitívnych funkcií. Výsledky ukazujú, akým spôsobom môžu byť slovotvorné aktivity využívané pri rozvíjaní analyticko-syntetických procesov, inferenčných procesov, procesov komparácie, kategorizácie, abstraktizácie a generalizácie, t. j. procesov, ktoré môžu pozitívne ovplyvniť kvalitu myslenia dieťaťa, a tak byť nápomocné v učebných, ale aj iných životných situáciách.

Kľúčová slova: *slovotvorba, slovotvorná motivácia, kognitívne funkcie, analýza, syntéza, komparácia, kategorizácia, abstraktizácia, generalizácia, inferenčné myslenie*

Abstract

The paper presents the partial results of research, which showed the possibilities for stimulating cognitive functions of child by means of word-formation. The research design relies on both linguistic and linguodidactic researches, that confirmed the important role of word-formation in Slovak lexicon as well as in speech and cognitive development of child. Based on these findings the research items including word-formation tasks were designed. The tasks were focused on development of language skills as well as stimulation of cognitive functions. The results show how the word-formation activities can be used in developing the processes like analysis, synthesis, inferring, comparing, categorization, abstraction, generalization, it means, the processes that can positively influence quality of child thinking. These processes can be helpful in learning as well as in other life situations.

Key words: *word-formation, word-formation processes, cognitive functions, analysis, synthesis, comparing, categorization, abstraction, generalization, inferring in thinking*

ÚVOD

Pri uvažovaní o možnostiach rozvíjania kognitívnych funkcií dieťaťa prostredníctvom slovotvorných aktivít sa zameriavame na obdobie mladšieho školského veku. Keďže ako prostriedok stimulácie využívame jazykový materiál – slovotvorné učivo, možno si v úvode položiť tieto otázky: Čo znamená zdôrazňovanie kognitívneho prístupu vo vyučovaní? Ako sa premietla kognitívna paradigma do vyučovania slovenského jazyka?

Z koncepčného hľadiska prešlo vyučovanie slovenského jazyka a literatúry v posledných desaťročiach niekoľkými zmenami. Štruktúrny, resp. systémovo-štruktúrny prístup bol približne v 80. rokoch 20. storočia nahradený komunikačno-poznávacou koncepciou vyučovania slovenského jazyka a literatúry (Ligoš, 2009, s. 57). Vo vzťahu k primárnemu

vzdelávaniu to znamenalo dôraz na rozvíjanie komunikačných a interpretačných zručností, opierajúc sa o poznanie základných jazykovedných a literárnovedných pojmov.
Vstupom do európskeho vzdelávacieho priestoru sa zvýšili nároky znalostnej spoločnosti. Popri schopnosti efektívne komunikovať sa tak zdôrazňuje aj schopnosť efektívne využívať získané zručnosti pri riešení nových učebných situácií. Spolu s rozvíjaním recepčných a produkčných komunikačných zručností by sa mali stimulovať aj kognitívne funkcie, ktoré sú dôležité z hľadiska učebného i osobnostného rozvíjania žiaka (viac o tom Liptáková a kol., 2011, s. 15 – 17).

1 SLOVOTVORBA V JAZYKU, REČI A MYSLENÍ DIEŤAŤA

Pri uvažovaní o úlohe slovotvorby v jazykovom systéme slovenčiny a vo vývine myslenia a reči dieťaťa vychádzame z teórie o slovotvornej motivácii, ktorú zaviedol do slovenskej jazykovedy J. Furdík, významný slovenský lingvista, derivatológ. Spolu s ním chápeme náuku o tvorení slov ako náuku o slovotvornej motivácii. V nasledujúcich častiach príspevku sa budeme opierať o tento termín, ktorým J. Furdík označuje „dialektický, synchrónne uvedomovaný formálno-sémantický vzťah prinajmenej medzi dvoma slovami, z ktorých jedno – východiskové, motivujúce – je formálne (súhrnom morfém okrem gramatických) aj sémanticky obsiahnuté v druhom, utvorenom, motivovanom“ (Furdík, 1989, s. 28). Slovotvornú motiváciu teda možno vymedziť ako vzťah medzi motivantom a motivátom, ktoré tvoria motivačnú dvojicu, napr. *jahoda → jahodový, maľovať → maliar, rýchla dráha → rýchlodráha* a i. Pod pojmom slovotvorná motivácia sa teda ukrývajú dva spôsoby tvorenia slov – odvodzovanie a skladanie.
Teória slovotvornej motivácie J. Furdíka sa stala východiskom výskumu detskej slovotvorby (Liptáková – Vužňáková, 2009), o zistenia ktorej sa opierame aj v našom výskume[1], resp. v predkladanom príspevku.

1.1 Slovotvorba v slovnej zásobe slovenčiny

Dôležité postavenie slovotvorby v jazykovom systéme slovenčiny vyplýva z jej úlohy, ktorú plní pri obohacovaní slovnej zásoby. Podľa výskumov tvoria slovotvorne motivované slová (odvodené a zložené slová) podstatne väčšiu časť slovnej zásoby. Podľa J. Furdíka (1993, 2004) sa ich zastúpenie pohybuje okolo 65 %. Najnovší výskum v oblasti slovenskej slovotvorby ukázal, že slovotvorne motivované slová predstavujú až 83,6 % z celkového počtu slov v slovnej zásobe súčasnej slovenčiny (Ološtiak – Ivanová, 2015, s. 128).
Slovotvorná motivácia plní v slovnej zásobe slovenčiny niekoľko dôležitých funkcií, a to systematizačnú, integračnú, kondenzačnú a adaptačnú (Furdík, 1989). Systematizačná funkcia spočíva v zoskupovaní slovotvorne motivovaných slov na základe ich spoločných formálno-významových vlastností. Príkladom je slovotvorné hniezdo – útvar, ktorý tvoria slová s rovnakou koreňovou morfémou, napr. *zlato, zlatý, zlatník, zlatníctvo, zlatokop, pozlátiť* a i. Takýmito vzťahmi je systematizovaná takmer celá slovná zásoba slovenčiny. So systematizačnou funkciou súvisí integračná funkcia, ktorá slúži na začlenenie novoutvorených alebo novoprevzatých slov do slovnej zásoby, napr. prevzaté slovo *skejt* sa začlenilo do slovnej zásoby a stalo sa východiskom pre vznik ďalších slov – *skejtový, skejter, skejtovať* a pod. S internacionalizáciou súvisí aj adaptačná funkcia, t. j. začleňovanie slova do lexikálneho systému daného jazyka, napr. prevzaté slovo *cool* sa stáva pridaním slovenskej prípony *-ový* (*coolový*) ohýbateľným. Kondenzačná funkcia slovotvornej motivácie sa uplatňuje pri viacslovných lexikálnych jednotkách, napr. *hráča prvej ligy* možno pomenovať jedným slovom – *prvoligista* (Furdík, 1989, s. 30 – 36; Furdík, 1993, s. 109 – 114; Furdík, 2004, s. 117 – 122). Vymedzením týchto funkcií poukázal J. Furdík na to, že slovotvorná

[1] Výskum prebiehal v spolupráci s prof. PaedDr. Ľudmilou Liptákovou, CSc.

motivácia plní „vo vzťahu k slovnej zásobe ako celku funkciu systematizátora, vo vzťahu k novoutvoreným slovám funkciu integrátora, vo vzťahu lexikálnych jednotiek k viacslovným pomenovaniam a výpovediam funkciu kondenzátora a vo vzťahu k prevzatým slovám funkciu adaptátora“ (Furdík, 1993, s. 114). Okrem štyroch základných funkcií plní slovotvorná motivácia aj sémantickú a komunikačnú funkciu, ktoré sa uplatňujú pri strete s neznámymi a málo frekventovanými slovami, kde slovotvorná štruktúra môže aspoň sčasti napovedať význam slova (porov. Furdík 1993, s. 48; Furdík, 1996, s. 51; Furdík, 2004, s. 24). Ak sa napríklad dieťa stretne s preň dovtedy neznámym slovom *drevina*, môže dekódovať jeho význam ako „niečo, čo je z dreva, resp. to, čo nejako súvisí s drevom“.
Odhaliť vznik a význam slovotvorne motivovaného slova možno pomocou substitučnej metódy – metódy parafráz (Furdík, 2004, s. 60). Parafráza vo forme vety alebo syntagmy by mala byť odpoveďou na otázku: Prečo sa niečo volá tak, ako sa volá? Napr. *Prečo sa drevina volá drevina? Pretože je to to, čo je z dreva.* Podobne možno postupovať nielen v prípade odvodených slov (derivátov), ale aj v prípade zložených slov (kompozít): *Prečo sa horolezec volá horolezec? Pretože je to ten, kto lezie po horách“*. Súčasťou parafrázy je motivujúce slovo, teda slovo (príp. slová), na ktorom sa motivát významovo aj formálne zakladá. Odpoveďou na otázku *Prečo sa niečo volá tak, ako sa volá?* rekonštruujeme slovotvorný význam. Ten, ako už bolo spomenuté vyššie, môže slúžiť ako nápoveď pri strete s neznámymi slovami. Nemusí však ponúkať kompletnú informáciu o význame slova, napr. *močiarka* je *tá, ktorá nejako súvisí s močiarom*. Ide však o mäkkýša s ulitou, ktorý žije v stojatých vodách, napr. aj v močiaroch. Slovotvorný význam sa totižto nie vždy úplne zhoduje s lexikálnym významom, teda tým, ktorý nachádzame napríklad v slovníku (pozri o tom Furdík, 2004, s. 52 – 59). Slovotvorná analýza je teda pomocným prostriedkom pri odhaľovaní významu slova, čo je však podstatnejšie, odhaľuje nám spôsob, akým slovo vzniklo, teda prečo sa niečo volá tak, ako sa volá.

1.2 Slovotvorba vo vývine reči a myslenia dieťaťa

Ak chceme pochopiť, ako si dieťa osvojuje jazyk a jeho pravidlá, ako tvorí a používa slová, ako si buduje slovník, musíme skúmať aj to, ako myslí, jeho mentálne stavy, teda zákonitosti jeho kognitívneho vývinu.
V rámci kognitívnej paradigmy sa jazyk skúma ako súčasť kognície. Ľudská jazyková kapacita je špecifická časť kognície, špecifická mentálna schopnosť človeka, ktorá má zásadný význam pre všeobecné kognitívne schopnosti (Schwarzová, 2009, s. 31). Jazyk a kognícia sú teda komplexné javy, ktoré nemožno oddeliť (ibid.). Opierajúc sa o tieto tvrdenia, vychádzame pri skúmaní z poznatkov kognitívnej psychológie, ale aj kognitívnej lingvistiky.
V súčasnosti existuje niekoľko teórií o kognitívnom vývine. Medzi najvplyvnejšie určite patrí teória J. Piageta a teória L. S. Vygotského. Kým J. Piaget chápe mentálny vývin ako predpoklad na to, aby sa jedinec mohol učiť, L. S. Vygotskij, naopak, tvrdí, že učenie razí cestu psychickému vývinu (Průcha, In: Vygotskij, 2004, s. 71). Napriek protichodnosti sa tieto dve teórie začali neskôr približovať, dokonca prelínať. Táto syntéza je osobitne dôležitá v rámci edukácie, pretože predstavuje významné východisko interakčných prístupov, ktoré pri kognitívnom vývine prisudzujú rovnaký význam procesom dozrievania, ako aj procesom učenia (Liptáková a kol., 2011, s. 58).
Teória J. Piageta pre nás odstavuje dôležité východisko pri uvažovaní o slovotvorbe v reči dieťaťa. Kognitívny vývin je podľa Piageta rozdelený do niekoľkých štádií, ktorými dieťa postupne prechádza v určitom vekovom období. Ide o senzomotorické štádium (0 – 2 roky), predoperačné štádium (2 – 7 rokov), štádium konkrétnych operácií (7 – 11 rokov) a štádium formálnych operácií (12 a viac rokov) (In: Fontana, 2010, s. 67 – 71). Našu pozornosť sústredíme predovšetkým na dieťa v mladšom školskom veku, ktorý sa vekovo prekrýva so

štádiom konkrétnych operácií. *Štádium konkrétnych operácií* je obdobie, v ktorom je myslenie dieťaťa viazané na konkrétnu skúsenosť. Deti sú už schopné logicky myslieť a narábať s abstraktnými pojmami, ale len vo vzťahu ku konkrétnym objektom, ktoré dokážu vnímať, s ktorými majú konkrétnu skúsenosť. Majú sklon skôr svoje okolie opisovať namiesto toho, aby ho vysvetľovali. Detské myslenie a reč sa stávajú menej egocentrické. Okrem ubúdania egocentrizmu získava dieťa schopnosť uplatňovať decentráciu a reverzibilitu. Modifikujú sa kognitívne štruktúry z predchádzajúceho štádia, objavujú sa však aj nové. Hlavnou kognitívnou štruktúrou daného obdobia je *grupovanie*, teda schopnosť zoskupovať predmety a javy do súborov na základe spoločných vlastností. Okrem nej má významné postavenie aj seriácia (radenie). Triedenie a radenie poukazujú na to, že deti sú schopné vnímať vzťahy medzi predmetmi a využívať to pri riešení problémov (viac o tom Piaget – Inhelder 1997; Čáp – Mareš, 2007, s. 393; Sternberg, 2009, s. 472 – 475; Fontana, 2010, s. 67 – 71; Liptáková a kol., 2011, s. 64 – 67).

Uplatnenie týchto kognitívnych štruktúr, predovšetkým hlavnej kognitívnej štruktúry daného obdobia – grupovania, vidíme aj v rámci slovotvorby. Táto štruktúra umožňuje na základe komparácie spoločných a rozdielnych vlastností kategorizovať pojmy do skupín. Pre dieťa predstavuje významnú oporu pri chápaní formálno-sémantických vzťahov medzi slovotvorne motivovanými slovami, teda aj vzťahov v slovotvornom hniezde (Liptáková a kol., 2011, s. 67).

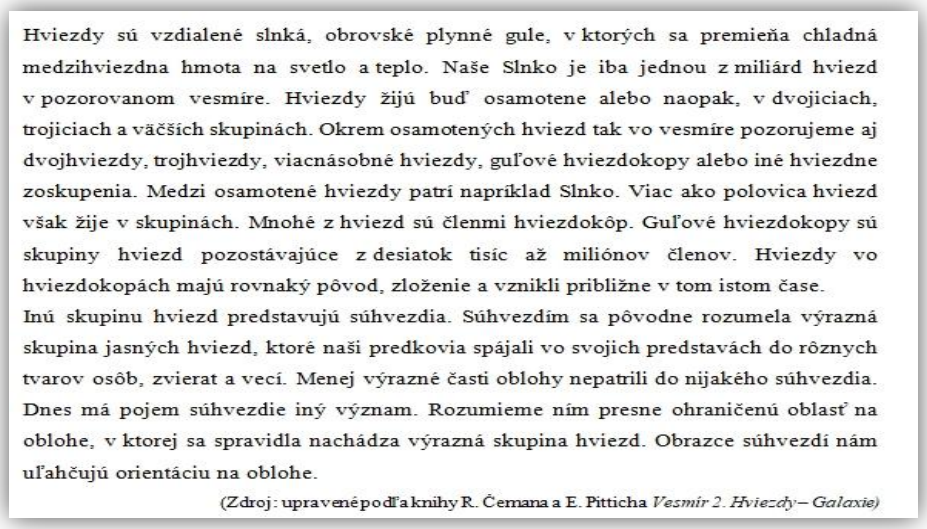
Ako bolo v úvode spomenuté, ak chápame jazyk ako súčasť kognície, nemožno ani rečový vývin oddeliť od vývinu kognitívneho. Aj pri osvojovaní si jazyka sa možno oprieť o dve najznámejšie teórie, a to behavioristickú teóriu B. F. Skinnera a nativistickú teóriu N. Chomského. Pri vysvetľovaní zákonitostí rečovej ontogenézy dieťaťa vychádzame predovšetkým z Chomského teórie. Deti už totižto v období predškolského veku „prirodzene jazykovo interpretujú svet aj tvorbou okazionálnych slov“ (Liptáková a kol., 2011, s. 74), ktoré dovtedy nepočuli vo svojom okolí a napriek tomu ich tvoria podľa určitých existujúcich modelov, schém (ibid.). Napríklad okazionálne slovo *autovyrábač,* ktoré odkazuje na toho, *kto vyrába autá*, je zo slovotvorného hľadiska utvorené správne (podľa kompozično-derivačného postupu) bez toho, aby dieťa poznalo zákonitosti slovotvornej motivácie (Liptáková, 2000; Liptáková, 2009a). Aj na základe toho sa možno domnievať, že dieťa teda disponuje istými vrodenými mechanizmami, ktoré mu pomáhajú kódovať významy v procese slovotvornej produkcie, ale aj ich dekódovať v procese slovotvornej recepcie (Liptáková – Vužňáková, 2009). Ak sa napríklad dieťa stretne s preň dovtedy neznámym slovom *miešačka,* môže ho na základe slovotvornej intuície dekódovať ako *to, čo niečo mieša*. Dôležitým východiskom pri procese slovotvornej recepcie i produkcie je uplatňovanie jednej z vyššie spomínaných funkcií slovotvornej motivácie, a to sémantickej funkcie (Liptáková, 2012, s. 76 – 77).

J. Furdík vymedzil jazykové funkcie slovotvornej motivácie. Výskum v oblasti detskej slovotvorby však poukázal aj na špecifické funkcie, ktoré plní slovotvorba v kognitívnej a rečovej ontogenéze dieťaťa. Ľ. Liptáková (2009a, s. 76 – 77) uvádza tieto funkcie: 1) *pomenúvacia* – dieťa využíva slovotvornú motiváciu pri pomenúvaní javov, na ktoré nemá vo svojom slovníku dosiaľ vhodné uzuálne pomenovanie; 2) *poznávacia, interpretačná* – prostredníctvom slovotvornej intuície si dieťa uvedomuje a interpretuje vzťahy medzi javmi; 3) *sociálnointerakčná* – slovotvorné schopnosti napomáhajú dieťaťu pri zvyšovaní slovnej fluencie a flexibility a pri rozširovaní verbálnej, a teda aj sociálnej interakcie; 4) *kognitívnostimulačná* – detská slovotvorná produkcia a recepcia slúži nielen ako odraz kognitívneho vývinu, ale aj ako predpoklad jeho ďalšieho stimulovania; 5) *rečovostimulačná* – slovotvorné aktivity, ale aj spontánna slovotvorná aktivita prispievajú k rozvíjaniu rečového prejavu; 6) *diagnostická* – zistenie miery slovotvornej „citlivosti“ dieťaťa môže slúžiť ako

diagnostický nástroj ontogeneticky podmienených jazykových schopností, ale aj ako nástroj zisťovania jeho učebných schopností (viac o tom Liptáková, ibid.).
Vymedzením kognitívnostimulačnej a rečovostimulačnej funkcie slovotvornej motivácie poukázala Ľ. Liptáková (2009b, s. 137) na skutočnosť, že slovotvorná produkcia a recepcia nie je len odrazom aktuálne dosiahnutej úrovne v kognitívnom a rečovom vývine dieťaťa, ale je aj predpokladom jeho stimulovania. Autorka sa domnieva, že ak dokáže dieťa produkovať isté v jazyku existujúce či možné slovotvorné štruktúry, možno predpokladať, že bude preň rovnako prirodzené reprodukovať a produkovať ich v zámerných rečových aktivitách. Slovotvorné aktivity preto považujeme v zhode s Ľ. Liptákovou za jeden zo spôsobov, ako možno rozvíjať reč a myslenie dieťaťa predškolského i mladšieho školského veku.
Na úlohu slovotvorby pri stimulácii kognitívnych funkcií upozornila už koncom 70. rokov V. Betáková (1979), ktorá poukázala na to, že pri osvojovaní si zručností používať isté jazykové prostriedky možno zároveň rozvíjať všeobecné rozumové schopnosti. Pri slovotvornom učive je nevyhnutným myšlienkovým postupom analýza a syntéza, čiže rozbor jazykových javov a zisťovanie vzťahov medzi nimi. Pri tomto poznávacom postupe sa uplatňujú aj ďalšie myšlienkové operácie, ako napr. abstrakcia, porovnávanie, rozlišovanie a zovšeobecňovanie (Betáková, 1979, s. 8). Podrobnejšie sa v súčasnosti tejto problematike venuje Ľ. Liptáková (2009b, 2012), ktorej práce sa stali inšpiráciou aj nášho skúmania.

2 MOŽNOSTI VYUŽITIA SLOVOTVORBY PRI STIMULÁCII KOGNITÍVNYCH FUNKCIÍ DIEŤAŤA

Na základe vyššie prezentovaných teoretických východísk boli navrhnuté edukačné jednotky, ktoré obsahovali úlohy zamerané na rozvíjanie recepčnej textovej kompetencie a slovotvornej kompetencie dieťaťa mladšieho školského veku. Cieľom však bolo rozvíjať nielen jazykové a komunikačné schopnosti dieťaťa, ale na základe spomínaných zistení o súvislosti kognitívnych a slovotvorných štruktúr (Liptáková – Vužňáková, 2009; Liptáková, 2012) využívať prácu s textom aj ako spôsob rozvíjania jeho kognitívnych funkcií.
V nasledujúcej časti ponúkame ukážku z výskumnej fázy, v rámci ktorej prebehla intervencia na hodinách slovenského jazyka. Ide o ukážku vybraných úloh z jednej z edukačných jednotiek, ktorá bola aplikovaná v triede 4. ročníka základnej školy.
Základom edukačnej jednotky bol východiskový text (obr. 1).



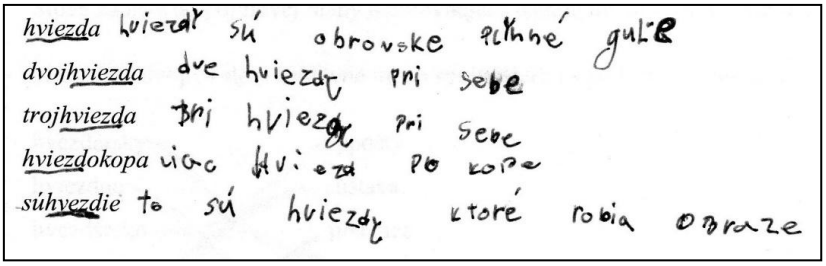
Hviezdy sú vzdialené slnká, obrovské plynné gule, v ktorých sa premieňa chladná medzihviezdna hmota na svetlo a teplo. Naše Slnko je iba jednou z miliárd hviezd v pozorovanom vesmíre. Hviezdy žijú buď osamotene alebo naopak, v dvojiciach, trojiciach a väčších skupinách. Okrem osamotených hviezd tak vo vesmíre pozorujeme aj dvojhviezdy, trojhviezdy, viacnásobné hviezdy, guľové hviezdokopy alebo iné hviezdne zoskupenia. Medzi osamotené hviezdy patrí napríklad Slnko. Viac ako polovica hviezd však žije v skupinách. Mnohé z hviezd sú členmi hviezdokôp. Guľové hviezdokopy sú skupiny hviezd pozostávajúce z desiatok tisíc až miliónov členov. Hviezdy vo hviezdokopách majú rovnaký pôvod, zloženie a vznikli približne v tom istom čase.
Inú skupinu hviezd predstavujú súhvezdia. Súhvezdím sa pôvodne rozumela výrazná skupina jasných hviezd, ktoré naši predkovia spájali vo svojich predstavách do rôznych tvarov osôb, zvierat a vecí. Menej výrazné časti oblohy nepatrili do nijakého súhvezdia. Dnes má pojem súhvezdie iný význam. Rozumieme ním presne ohraničenú oblasť na oblohe, v ktorej sa spravidla nachádza výrazná skupina hviezd. Obrazce súhvezdí nám uľahčujú orientáciu na oblohe.
(Zdroj: upravené podľa knihy R. Čemana a E. Pitticha *Vesmír 2. Hviezdy – Galaxie*)

Obr. 1 Východiskový text so slovotvorným hniezdom

Ide o vecný encyklopedický text (Čeman – Pittich, 2003), ktorý bol podrobený slovotvornej analýze. Tá ukázala vysoké zastúpenie slov odvodených od slova *hviezda – medzihviezdna, dvojhviezdy, trojhviezdy, hviezdne, hviezdokopy, súhvezdia.* Tieto slová možno na základe spoločnej časti, spoločného koreňa, zoskupiť do slovotvorného hniezda (pozri Furdík, 2004, s. 76).
Výskumný súbor tvorili žiaci 4. ročníka základnej školy, ktorí podľa Piagetovej klasifikácie vekovo korešpondujú so štádiom konkrétnych operácií. Keďže dominantnou kognitívnou štruktúrou daného obdobia je grupovanie (pozri podkap. 1.2), rozhodli sme sa pracovať s danou skupinou slovotvorne motivovaných slov.
V prvej úlohe sme sa zamerali na porozumenie vybraným pojmom zo slovotvorného hniezda. Sledovali sme postup, akým dieťa dekóduje význam daných slov.

ÚLOHA 1
1) Na základe prečítaného textu vysvetlite význam týchto slov:
hviezda
dvojhviezda
trojhviezda
hviezdokopa
súhvezdie

Význam niektorých pojmov bol vyjadrený v texte explicitne, v niektorých prípadoch implicitne. Analýza žiackych riešení ukázala, že žiaci buď reprodukovali informácie z textu, alebo sa ich snažili interpretovať vlastnými slovami. V niektorých prípadoch zložených slov využívali ako pomôcku formálnu stránku motivátu, teda sémantickú funkciu slovotvornej motivácie, napr. *dvojhviezda* sú dve hviezdy, *trojhviezda* sú tri hviezdy, *hviezdokopa* je viac hviezd pokope (pozri napr. obr. 2).



Obr. 2 Ukážka žiackej práce – dekódovanie významu pojmov

V úlohe 2 sme sa primárne zamerali na stimuláciu procesov komparácie, a to prostredníctvom dvoch otázok: Čo majú (slová) spoločné? Čím sa (slová) líšia?

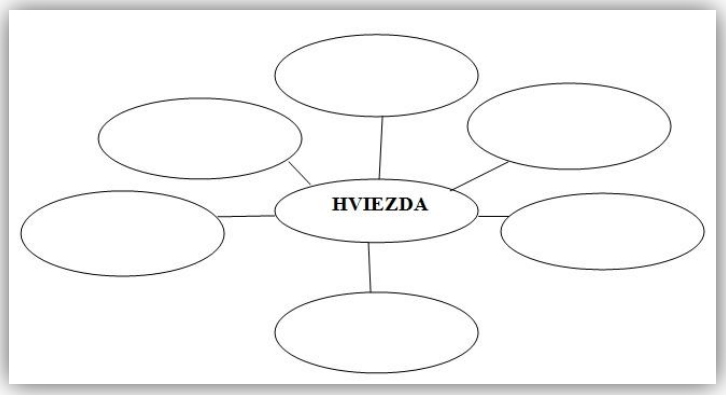
ÚLOHA 2
2) Slová porovnajte. Čo majú spoločné? Čím sa odlišujú? Prečo sa volajú tak, ako sa volajú?

Porovnávanie slovotvornej štruktúry slov utvorených od slova *hviezda* viedlo žiakov k uvedomovaniu si formálnych vzťahov medzi slovami, t. j., že slová majú spoločnú časť (koreňovú morfému), ktorú vyznačovali podčiarknutím (pozri obr. 2). Ako odlišnú časť identifikovali predpony, prípony, v prípade zložených slov ďalšie slovotvorné základy. Okrem formálnej štruktúry sústredili žiaci pozornosť aj na významovú stránku motivátov. Znamená to, že ako spoločnú vlastnosť slov určili aj to, že všetky nejako súvisia s hviezdou. Odpoveďou na otázku *Prečo sa niečo volá tak, ako sa volá?,* napr. *Prečo sa dvojhviezda volá*

dvojhviezda? Prečo sa hviezdokopa volá hviezdokopa? odkrývali žiaci slovotvorný význam jednotlivých motivátov – *Pretože sú to dve hviezdy. Pretože je to kopa hviezd.*[2]
Uvedomovaním si štruktúrovanosti motivátu, resp. vytváraním predstavy o štruktúrovanosti slovotvorne motivovaného slova, o vzťahu medzi formou a významom sa zároveň výrazne stimulujú analyticko-syntetické procesy (pozri Liptáková, 2009b). Okrem toho sme sa snažili prostredníctvom utvárania ďalších kompozít s numerálnym komponentom stimulovať inferenčné procesy, t. j. usudzovanie typu ak – potom (pozri Liptáková, ibid.), napr. ak sa dve hviezdy pri sebe nazývajú *dvojhviezda*, ako sa bude volať sústava štyroch (piatich, šiestich) hviezd? Žiaci bez akýchkoľvek ťažkostí tvorili motiváty *štvorhviezda, päťhviezda, šesťhviezda* a pod.

V úlohe 3 sme okrem vyššie spomínaných kognitívnych funkcií zamerali pozornosť predovšetkým na stimulovanie procesov kategorizácie, t. j. zoskupovanie slov na základe spoločných znakov.

ÚLOHA 3
3) Slová príbuzné so slovom *hviezda* zapíšte do pojmovej mapy. Vyhľadajte ich v texte a podčiarknite.



Obr. 3 Pojmová mapa s východiskovým slovom *hviezda*

V prípade prezentovanej úlohy ide o zoskupovanie slovotvorne motivovaných slov na základe ich spoločných významovo-formálnych vlastností. Tie žiaci identifikovali v predchádzajúcej úlohe. Vzhľadom na dominantnú kognitívnu štruktúru daného obdobia – grupovanie (Piaget – Inhelder, 1997), sa domnievame, že pojmová mapa predstavuje vhodný prostriedok na grafické znázornenie príbuzných slov, teda slov v slovotvornom hniezde, a vzťahov medzi nimi.[3] Zároveň vytvárame u žiakov predstavu o slovotvornom hniezde ako jednom zo slovotvorných útvarov (pozri Furdík, 2004).

Úloha 4 je príkladom stimulácie analyticko-syntetických procesov, a to prostredníctvom uvedomovania si štruktúrovanosti slovotvorne motivovaného slova a vzťahov medzi formou a významom. Ako pomocný prostriedok na identifikáciu ďalších slov z hniezda sme zvolili slovotvorné parafrázy. Žiak postupuje od významu k forme (1. – 3. veta), ale aj naopak, od formy k významu (4. a 5. veta).

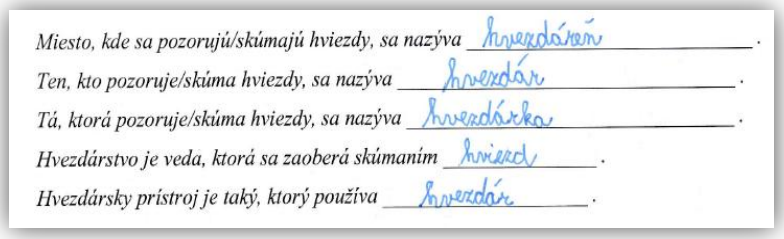
ÚLOHA 4

[2] Úloha 2 bola realizovaná ústne. Analýza odpovedí prebehla na základe zápiskov z pozorovania.
[3] Termíny pojmová mapa a príbuzné slová mali žiaci osvojené z hodín slovenského jazyka, ako aj z prechádzajúcej intervencie.

4a) Poznáte ešte iné slová, ktoré sú príbuzné so slovom *hviezda*? Nájdete ich aj v týchto vetách.
4b) Slová zapíšte do pojmovej mapy a porovnajte s ostatnými slovami Čo ste si všimli?

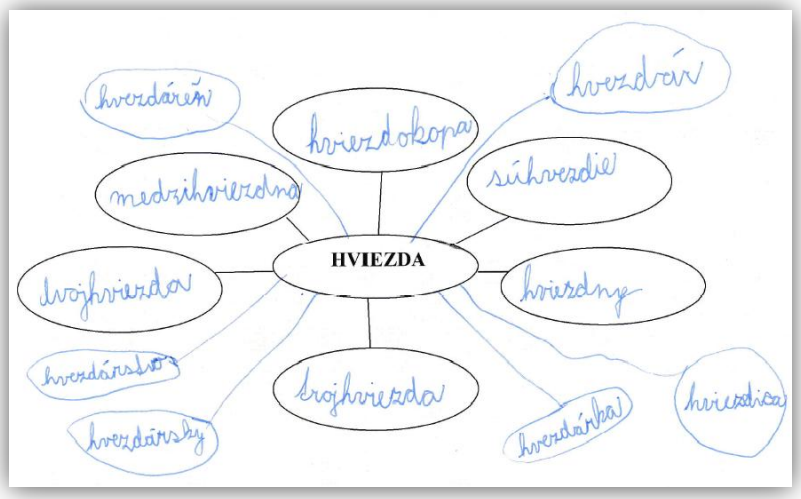
Miesto, kde sa pozorujú/skúmajú hviezdy, sa nazýva _____ .
Ten, kto pozoruje/skúma hviezdy, sa nazýva _____ .
Tá, ktorá pozoruje/skúma hviezdy, sa nazýva _____ .
Hvezdárstvo je veda, ktorá sa zaoberá skúmaním _____ .
Hvezdársky prístroj je taký, ktorý používa _____ .

Slovotvorné parafrázy sa ukázali ako pomocný prostriedok pri doplňaní slov (*hvezdáreň, hvezdár, hvezdárka, hviezd, hvezdár*; pozri obr. 4), ale zároveň slúžili ako prostriedok uvedomovania si významovo-formálnych vzťahov medzi slovotvorne motivovanými slovami.



Obr. 4 Ukážka žiackej práce - doplňanie slovotvorných parafráz

V časti úlohy 4b sme sa opäť, podobne ako v úlohe 3, zamerali predovšetkým na stimulovanie procesov komparácie a kategorizácie. Žiaci doplnili pojmovú mapu o ďalšie slovotvorne motivované pojmy zo slovotvorného hniezda s motivantom *hviezda* (pozri napr. obr. 5).



Obr. 5 Ukážka žiackej práce – pojmová mapa

Kritériom na zoskupovanie bola spoločná časť, ale aj významová súvislosť. Porovnaním doplnených slov žiaci zároveň identifikovali ďalšie časti, ktorými sa slová odlišujú (prípony *-ár, -ka, -sky*...). V súvislosti s tým sme na základe analógie a s cieľom stimulovať inferenčné myslenie žiadali žiakov, aby utvorili ďalšie motiváty typu: Ak ten, kto pozoruje hviezdy, je *hvezdár*, ten, kto sa stará o včely je *včelár*, ako sa bude volať ten, kto vyrába stroje? Odpoveď: *strojár*. Cieľom bolo premostiť od porozumenia významu konkrétneho slova k porozumeniu funkcie prípony, resp. slovotvorného typu – pridaním prípony -ár vytvárame

pomenovania osôb (činiteľov deja). Podobne možno postupovať napríklad aj v prípade tvorby feminantív či iných skupín slov. Týmto spôsobom sa zároveň výrazne stimulujú procesy abstraktizáce a generalizácie (pozri Liptáková, 2009b). Ako ukázala analýza, úloha 4 je príkladom toho, ako možno prostredníctvom jednej úlohy stimulovať niekoľko kognitívnych funkcií (procesov).

ZÁVER

V príspevku sme poukázali na to, ako možno prostredníctvom jazykového učiva – slovotvorných aktivít, rozvíjať nielen jazykové vedomosti, ale aj kognitívne funkcie dieťaťa. Aktivity boli zamerané na kategorizovanie slovotvorne motivovaných slov, teda slov utvorených odvodzovaním alebo skladaním, a to na základe ich spoločných formálno-sémantických vlastností. Zameranie úloh vychádzalo z Piagetovej klasifikácie kognitívneho vývinu, podľa ktorej sa dieťa mladšieho školského veku, na ktoré sme sústredili pozornosť, nachádza v tzv. štádiu konkrétnych operácií, ktorého dominantnou kognitívnou štruktúrou je grupovanie – zoskupovanie vecí a javov podľa spoločných znakov. Zároveň sme sa opierali o poznatky z výskumu detskej slovotvorby (Liptáková – Vužňáková, 2009), ktorý potvrdil, že dieťa disponuje istými vrodenými mechanizmami, ktoré mu pomáhajú jednak pri recepcii, ako aj pri produkcii slovotvorne motivovaných slov. V neposlednom rade sme vychádzali z derivatologického výskumu a funkcií, ktoré plní slovotvorba v jazykovom systéme slovenčiny, ale aj v reči a myslení dieťaťa.

Cieľom príspevku a predstavených aktivít bolo poukázať na to, ako možno poznávanie jazykových prostriedkov a pravidiel tvorby slov, teda získanie poznatkov o jazyku, využiť ako prostriedok stimulácie kognitívnych funkcií dieťaťa, dôležitých z hľadiska jeho učebného, ale aj osobnostného rozvoja.

Poznámka: Príspevok je súčasťou riešenia projektu PRIMUS/HUM/19: *Didaktika českého jazyka v současném vzdělávacím kontextu*.

Použitá literatura

1. BETÁKOVÁ, V. *O vyučovaní tvorenia slov.* 2. vydanie. Bratislava: Slovenské pedagogické nakladateľstvo, 1979. 144 s.
2. ČÁP, J., MAREŠ, J. *Psychologie pro učitele.* 2. vydanie. Praha: Portál, 2007. 656 s. ISBN 978-80-7367-273-7.
3. ČEMAN, R., PITTICH, E. *Vesmír 2. Hviezdy – Galaxie*. 1. vydanie. Bratislava: Mapa Slovakia, 2003. 288 s. ISBN 80-8067-074-9.
4. FONTANA, D. *Psychologie ve školní praxi.* 3. vydanie. Praha: Portál, 2010. 383 s. ISBN 978-80-7367-725-1.
5. FURDÍK, J. *Úloha slovotvornej motivácie v lexikálnej dynamike*. In: HORECKÝ, J., BUZÁSSYOVÁ, K., BOSÁK, J. a kol. Dynamika slovnej zásoby súčasnej slovenčiny. 1. vydanie. Bratislava: Veda, vydavateľstvo slovenskej akadémie vied, 1989. 429 s.
6. FURDÍK, J. *Slovotvorná motivácia a jej jazykové funkcie*. 1. vydanie. Levoča: Modrý Peter, 1993. 199 s. ISBN 80-85515-03-2.
7. FURDÍK, J. *Jazykový status slovotvorne motivovaného slova.* In: Studia Philologica III. Acta Facultatis Paedagogicae Universitatis Šafarikanae. Red. Z. Stanislavová. Prešov: Univerzita P. J. Šafárika v Košiciach, Pedagogická fakulta v Prešove, 1996. 218 s. ISBN 80-88697-29-8..

8. FURDÍK, J. *Slovenská slovotvorba (Teória, opis, cvičenia).* 1. vydanie. Ed. M. Ološtiak. Prešov: Náuka, 2004. 200 s. ISBN 80-89038-28-X. .
9. LIGOŠ, M. *Základy jazykového a literárneho vzdelávania I. Úvod do didaktiky materinského jazyka a literatúry.* 1. vydanie. Ružomberok: Filozofická fakulta Katolíckej univerzity v Ružomberku, 2009. 119 s. ISBN 978-80-8084-429-5.
10. LIPTÁKOVÁ, Ľ. *Okazionalizmy v hovorenej slovenčine*. 1. vydanie. Prešov: Náuka, 2000. 145 s. ISBN 80-968202-8-1.
11. LIPTÁKOVÁ, Ľ. *Detská okazionálna slovotvorba a slovotvorba orientovaná na dieťa.* In: LIPTÁKOVÁ, Ľ., VUŽŇÁKOVÁ, K. Dieťa a slovotvorba. 1. vydanie. Prešov: Prešovská univerzita, Pedagogická fakulta, 2009a. 203 s. ISBN 978-80-555-0072-0.
12. LIPTÁKOVÁ, Ľ. *Slovotvorná motivácia ako prostriedok rečového a kognitívneho rozvíjania dieťaťa.* In: LIPTÁKOVÁ, Ľ., VUŽŇÁKOVÁ, K. Dieťa a slovotvorba. Prešov: Prešovská univerzita, Pedagogická fakulta, 2009b. 203 s. ISBN 978-80-555-0072-0.
13. LIPTÁKOVÁ, Ľ. *Kognitívne aspekty vyučovania materinského jazyka v primárnej edukácii.* 1. vydanie. Prešov: Prešovská univerzita v Prešove, Pedagogická fakulta, 2012. 135 s. ISBN 978-80-555-0643-2.
14. LIPTÁKOVÁ, Ľ. a kol. *Integrovaná didaktika slovenského jazyka a literatúry pre primárne vzdelávanie*. 1. vydanie. Prešov: Prešovská univerzita v Prešove, Pedagogická fakulta, 2011. 580 s. ISBN 978-80-555-0462-9.
15. LIPTÁKOVÁ, Ľ., VUŽŇÁKOVÁ, K. *Dieťa a slovotvorba*. 1. vydanie. Prešov: Prešovská univerzita, Pedagogická fakulta, 2009. 203 s. ISBN 978-80-555-0072-0.
16. OLOŠTIAK, M., IVANOVÁ, M. *Slovotvorná a lexikálna motivovanosť lexiky v slovenčine.* In: OLOŠTIAK, M., ed. Kvalitatívne a kvantitatívne aspekty tvorenia slov v slovenčine. 1. vydanie. Prešov: Filozofická fakulta Prešovskej univerzity v Prešove, 2015. 1024 s. ISBN 978-80-555-1406-2.
17. PIAGET, J., INHELDER, B. *Psychologie dítěte.* 1. vydanie. Praha: Portál, 1997. 143 s. ISBN 80-7178-146-0.
18. SCHWARZOVÁ, M. *Úvod do kognitivní lingvistiky.* Praha: Dauphin, 2009. 203 s. ISBN 978-80-7272-155-9.
19. STRERNBERG, R. J. *Kognitivní psychologie.* 2. vydanie. Praha: Portál, 2009. 636 s. ISBN 978-80-7367-638-4.
20. VYGOTSKIJ, L. S. *Psychologie myšlení a řeči.* 1. vydanie. Zost. J. Průcha. Praha: Portál, 2004. 135 s. ISBN 80-7178-943-7.

Kontaktní údaje

Mgr. Eva Gogová, PhD.
Prešovská univerzita v Prešove, Pedagogická fakulta
Ul. 17. novembra 15, 080 01 Prešov
Tel: 051 / 7470 531
email: eva.gogova@unipo.sk

SELECTED PERSONALITY TRAITS AND SITUATION-MOTIVATIONAL FACTORS OF TOBACCO BEHAVIOR IN ADULT SMOKERS AND FORMER SMOKERS

Marta Vavrová, Karin Gálová

Abstract

The study is focused on the exploration of the relations between personality traits and situation-motivational factors (SMF) of experimentation with smoking and regular smoking. The aim of the study was to verify the association between personality hardiness and later experimentation with smoking; hardiness and non-using tobacco behaviour. Another aim was to examine the correlations between personality variables (hardiness, impulsivity, addictiveness and emotional stability/lability) and SMF of experimentation with smoking and regular smoking. The research sample consists of adults at the age of 19 - 50 years (N = 241; 34,0% men and 66,0% women). The questionnaire method includes the original Questionnaire on Situation-motivational tobacco (smoking) behavior factors, Hardiness scale, and EPQ-R - IVE. The results highlighted the relationship between the personality hardiness and later experimentation with smoking as well as non-smoking behavior; the emotional lability, impulsivity, and addictiveness in association to daily smoking and the relation between emotional stability/lability and SMF of smoking especially SMF „Escape from problems“, and SMF „Family influence”.

Keywords: *tobacco behavior, situation-motivational factors, experimentation, regular smoking, hardiness, emotional stability.*

1 INTRODUCTION

Smoking and drinking alcohol are the most prevalent drugs in Slovakia. Within the adult population, the prevalence of day-to-day smoking was found in 28,9% of respondents, with the remaining 71,1% either non-smokers or smokers just occasionally (Heretik et al., 2008). In order to understand in more detail, the reasons for the persistence of the negative phenomenon of smoking in society, we have to focus on the individual`s personality, but also on the reasons and circumstances of its initial experimentation as well as regular use. Drug behavior (experimentation, occasional, regular, problem, binge use, or addiction) is a behavior whose causal factors cannot be identified separately. Long-term research in this area points to several factors that influence the initialization and progress of drug behavior. These are, in particular, personality traits, social factors (especially relationships in the family, within peers, and in school), and situational factors that represent stimuli, triggering stimuli that leads an individual to contact with drug and represses its inhibition (such as stress or conflict, enhancement, desire for effect or curiosity).

According to the research, the relations between smoking and personality has shown that it is not possible to determine the single type of personality of a smoker. However, the personality traits that are associated with the tendency to use tobacco products are known. Novák at al. (1980) report that smokers are more emotionally unbalanced, which is associated with problems that they are unable to solve independently. Smokers are also often classified as anxious neurotics who have less self-control, are moody with a tendency to infantile reactions. Gilbert (in Eysenck and Eysenck, 1992) states that there are significant differences between smoker and non-smoker personalities. Smokers are characterised by higher excitability than non-smokers, as well by a greater tendency to anger and potential irritability. Sher and Trull (in LoCastro et al., 2000) consider, within the description of persons who abuse various

addictive substances, the most important the examination of three personality dimensions: impulsivity, neuroticism, and extroversion. Other authors, such as Dubey et al. (2010), describe the personality of an individual susceptible to the abuse of legal or illegal drugs based on a five-factor model. They mention predominantly high scores of neuroticism, openness and low scores in factors of consciousness, friendliness, and extraversion among addictive substance consumers. According to the research investigating the correlation between the current smoking status and neuroticism, subjects who are current smokers scored in the factor of neuroticism higher than people who have never smoked (Terracciano and Costa, 2004).

As another essential personality trait, regarding smoking, personality hardiness become known. Křivohlavý (2009) considers hardiness as a personality characteristic, which makes it possible to attenuate or reduce the negative impact of life events. Abdollahi et al. (2015) examined the link between smoking, personality hardiness, and emotional intelligence in adolescents. Researchers have concluded that adolescents with a high degree of personality hardiness and a high degree of emotional intelligence have been more likely to take a negative attitude towards smoking cigarettes. These findings point to the fact that personality hardiness and emotional intelligence are the protective factors before experimenting with smoking in adolescents. Therefore, the study authors emphasize the importance of training emotional intelligence and personality hardiness within the smoking prevention programmes.

The combination of drug behavior risk factors was dealt with by Rojková and Popelková (2010) in a study aimed at comparing the group of dependent alcoholics and individuals without a dependence in situation-motivational factors of alcohol behavior, parenting factors, and personality traits. The research identified a combination of factors: neuroticism - inconsistent educational management - a negative emotional relationship in the family - situation-motivation factor "Escape from problems" during experimenting with drinking and even at initialising of regular drinking. This combination of factors appeared in the group of dependent alcoholics and did not appear in the comparison group without dependence. The findings of Rojková and Popelková (2010) also point out that individuals with higher emotional lability rather underlying experimentation with alcohol at the presence of situation-motivational factor "Escape from problems", which was further identified as being at risk for problem alcohol behavior forms. In the year 2016, Mičková and Rojková (2016) realised a study on college students, in which they also analysed the relationship of situation-motivational factors and personality. They found that neuroticism is related to the factor „Escape from problems“ - as a motive of regular drinking – positively and the extraversion negatively. Among personality factors and the „Group influence“ as a motive of regular alcohol use, significant relationships have not been found.

Based on the previous finding, we have set the objective to examine the relationship between personality variables emotional stability/lability, impulsiveness, addictiveness and personal hardiness, and situation-motivational factors of smoking as well as mentioned personality variables in groups of smokers and non-smokers. For the definition of non-smokers, six categories of tobacco behavior have been identified namely: (1) non-smokers, former smokers, (2) occasional smokers who smoke only at celebrations and social occasions, (3) occasional smokers who smoke only with friends, (4) regular smokers who smoke no more than 5 cigarettes a day and (5) regular smokers who smoke more than 5 cigarettes a day.

Hypotheses that have been verified:

H1: We assume that there is a relationship between personal hardiness and later experimentation with smoking.

H2: We assume that respondents who are smokers will have lower personal hardiness than non-smokers and former smokers.

H3: We assume that there is a relationship between the category of tobacco behavior and personality traits emotional stability/lability, impulsivity, and addictiveness.
H4: We assume that there is a relationship between situation-motivational factors of smoking and the degree of emotional stability/lability.

2 METHODS

2.1 Participants

Participants in the research file were selected by a combination of random and criteria selection. The main criterium was a minimum age of 18 years and a maximum age of 50 years. The youngest respondent was 19 years old and the oldest 50 years, with an average age of females 30,3 years and in males 34,8 years. The total sample consisted of 200 people.

2.2 Measurements

Questionnaire on situation-motivational smoking (tobacco) behavior factors
The questionnaire was created as a modification of a questionnaire for the measurement of situation-motivational factors of alcohol behavior (Rojková 2010, 2016; Rojková and Mičková, 2016). The Questionnaire on situation-motivational smoking (tobacco) behavior factors consists of two main parts: Part A for situation-motivation factors in experimentation (with smoking) and Part B for situation-motivational factors in regular smoking. The measurement identifies the individual factors that affect the initial contact with a cigarette. Specifically, there are 4 situation-motivational factors (SMF) in experimentation: (1) Peer group influence, (2) Curiosity and desire for novelty, (3) Escape from problems, (4) Family influence; and 3 SMF of regular use: (1) Group influence, (2) Desire for effect, (3) Escape from problems. The instrument consists of 20 items for detection of SMF in experimenting with smoking and 15 items of SMF in regular smoking. In both parts of the questionnaire, respondents indicated their response on the 5-level Likert`s scale in the meaning of the full approval to complete disapproval. The Cronbach's Alpha coefficient for individual SMFs of two instrument parts was found for each SMF at a level > 0,7, which confirmed their high internal consistency.

Hardiness scale
The questionnaire was created by Dr Kentom T. Yamauchi, who based on Kobasa's model (1985) of personality hardiness. The instrument has been translated from an English original, consists of 12 statements in which respondents answer on a 4-level scale from "strongly disagree" to "strongly agree". When evaluating a questionnaire, we get three dimensions, namely Control, Commitment, and Challenge. The sum of these scores gives us a total score of Hardiness. Based on the overall personality hardiness score, we can assign the respondents into three categories according to the hardiness degree. Specifically, individuals with a high personality hardiness rate of 10 to 18 points, individuals with an average hardiness rate of 0 to 9, and individuals with a low indiscriminate rate having fewer points than 0.

EPQ-R
Based on Eysenck's personality theory, the authors are H. J. Eysenck, S. G. Eysenck, whereas S. Senka, T. Kováč, and M. Matejík adapted the method on the Slovak population. The questionnaire measures three basic dimensions of the personality, namely the dimension of Emotional stability/lability, Extroversion, and Psychoticism, whereas the questionnaire has been complemented by the three additional scales, as well, which are: Addictiveness, Criminality, and Social desirability scale. It contains 106 items in which respondents answer in a dichotomic way "Yes/No" (Eysenck, Eysenck 1992).

IVE

The questionnaire is also included among Eysenck's adult personality questionnaires (EPQ-IVE). Using IVE, we can measure the traits: Impulsiveness, Adventurousness, and Empathy. The questionnaire consists of 54 statements in which respondents answer yes or no (Eysenck, Eysenck 1992).

3 RESULTS

To verify the hypothesis the statistical data processing procedures were used. The verification was preceded by testing the normal distribution of the variables.

To support the first hypothesis, in which we assumed that there is a relationship between personality hardiness and the age of experimenting with smoking, we used the nonparametric Spearmen's correlation coefficient. The analysis revealed a weak negative correlation between variables what was the basis for hypothesis acceptation. The results of the analysis are shown in Table 1. A negative correlation means that the higher the personal indolence, the earlier individual tried to smoke for the first time.

Table 1: Correlation between the age of experimentation with smoking and the personality hardiness

		Personality hardiness
Age of experimentation	**r**	- 0,160 *
	Sig.	0,040
	N	200

In testing a second hypothesis aimed at verifying that respondents who are smokers will have lower personality hardiness than non-smokers and ex-smokers, we compare the score of personality hardiness achieved by respondents, depending on whether the individual is a smoker, a non-smoker, or a former smoker. The hypothesis was tested using the Kruskal-Wallis test with significant results, Sig. < 0,05 (Table 2), when the highest score of personality hardiness was detected in former smokers with MR = 115,34, followed by non-smokers with MR = 103,19 and the lower score among smoker with MR = 91,24. We interpret that respondents, who are smokers, show in average lower values of personality hardiness than non-smokers and respondents who are former smokers. The second hypothesis was supported.

Table 2 The difference in personal hardiness among the three groups of respondents according to tobacco behavior, the description of Mean ranks and the result of the Kruskal Wallis test

	Group	**N**	**Mean Rank**	**Kruskal Wallis test**	
Personal hardiness	**Non-smoker**	36	103,2	**Chi-Square**	6,7
	Former smoker	59	115,3	**df**	2
	Smoker	105	91,2	**Sig.**	0,033
	Total	200			

Table 3 The difference in personality traits (emotional stability/lability, impulsivity, and addictiveness) with regard to the categories of tobacco behavior, the description of the Mean ranks and the result of the Kruskal Wallis test

	Emotional stability/lability		**Impulsivity**		**Addictiveness**	
Category of tobacco	**N**	**Mean Rank**	**N**	**Mean Rank**	**N**	**Mean Rank**

behavior						
Non-smoker at all	36	100,3	36	70,6	36	103,1
Non-smoker, but former smoker	58	76,8	58	92,5	58	74,3
Occasionally	12	82,9	12	111	12	72,5
Only with friends	10	74,7	10	104,9	10	77,3
Smoking less than 5 cigarettes a day	9	110,1	9	103,8	9	117,6
Smoking more than 5 cigarettes a day	75	124	75	118,4	75	125,1
Total	200		200		200	
Kruskal Wallis test						
Chi-Square	25,6		18,5		30,8	
df	5		5		5	
Sig.	0,000		0,000		0,000	

To test the third hypothesis, in which we assumed that there is a relationship between the category of tobacco behavior and personality traits: emotional stability/lability, impulsivity, and addictiveness, we decided to use the procedure of the nonparametric Kruskal Wallis test for comparison of three or more independent samples. Variables, such as emotional stability, impulsivity and addictiveness obtained through the EPQ-R and IVE questionnaires, were compared according to the category of tobacco behavior of individuals. The results on emotional stability show Sig < 0,001, on impulsivity Sig < 0.001 and on addictiveness Sig. < 0.001. The scores for individual dimensions and types of tobacco behavior are shown in Table 3. The results allow us to support the hypothesis 3.

To examine possible relationships between individual SMFs in experimentation with smoking, and in regular smoking and emotional stability/lability, the nonparametric Spearmen's correlation coefficient was used. We found that emotional stability/lability significantly correlated (Sig. < 0,05) with the SMF „Escape from problems“ in experimenting with smoking and also regular smoking, and the „Family influence“ in experimenting, all at the level of a weak linear relation (Table 4).

Table 4 Correlation between SMF of smoking and a personality trait Emotional stability/lability

		SMF of experimentation with smoking				**SMF of regular smoking**		
		(Peer)Group influence	Family influence	Curiosity	Escape from problems	Group influence	Desire for effect	Escape from problems
Emotional stability/ lability	r	0,021	,189 *	-0,042	,286**	-0,074	0,001	,180*
	Sig.	0,805	0,012	0,624	0,000	0,346	0,984	0,022

4 DISCUSSION AND CONCLUSION

The smoking situation is a socially significant problem not only for the high number of smokers in the adult age but mainly for the younger age groups. In 2011, 80,0% of pupils

smoked one and more during their life, compared with 78,6% in 2003. The smoking frequency 40 and more times lifelong reported 40,7% of a population at the age of adolescents. In 2015, that was a reversal, and a moderate increase or stabilisation had replaced a marked drop in both the frequency and amount of drug use when 40 and more times lifelong smoked 34,4% of the high school population. Quite different was the situation with the 30-day prevalence: in 2003, 56,1% did not smoke at all (56,5% in 2007), in 2011 the number of non-smokers dropped to 52.4%, and simultaneously in 2003 smoked one to five cigarettes per day only 31,2% (32,7% in 2007). However, in 2011 it was 35,1% and in 2015 a bit less – 27,3% of the high school pupils.

For the effective prevention, it is necessary to deal with both protective and risk factors that are related to experimentation but also to the subsequent transition to regular use. There are currently several concepts of risk and protective factors, but we can mainly see a division into biological, social or environmental and personality factors. Risk factors complement and influence each other, and are significant both from the quantitative and qualitative viewpoint. Several studies suggest that the risk of substance use disorder (SUD) increases directly in proportion to the number of risk factors that occur in an individual, other approaches discuss rather of specific risk factors combinations. In the present study, we focused on examining the relationship between personality factors and the situation of smoking experimentation, regular smoking and situation-motivational factors of smoking.

In the first two hypotheses, we focused on the personality trait hardiness, based on the research by Abdollahi et al. (2015) who found that adolescents with a high level of personality hardiness and a high level of emotional intelligence had a more negative attitude towards smoking cigarettes. In the adult population, we supported the assumption about the relationship between personality hardiness and early experimentation with smoking. There was an indirect linear significance relation between personality hardiness and the age of experimentation with smoking. We also assumed that respondents who are smokers would have lower personality hardiness than non-smokers and former smokers. This assumption has also been confirmed, with lower average scores of personality hardiness among respondents who are smokers than non-smokers and respondents who are former smokers, who have a higher average value of personality hardiness. These findings correspond with the statement of Paulík (2010) that individuals who have not developed enough personality hardiness are often controlled by feelings of helplessness and a vain effort to change events that affect their lives and therefore remain to be smokers. Based on the results, we can claim that this personality trait is one of the characteristics related to the fact that the individual is susceptible to early experiment with smoking and then more likely begins to smoke regularly as well as when an individual has already initiated his regular smoking, whether he will be able to quit.

Subsequently, we focused on verifying the differences in personality characteristics of emotional stability/lability, impulsivity, and addictiveness between the categories of tobacco behavior. According to the theoretical sources, regular smokers score high in all the above-mentioned personality traits. In our study, we have decided to compare emotional stability/lability, impulsivity, and addictiveness not only between smoker and non-smoker categories but also among individuals who refer other forms of tobacco behavior. The six categories of tobacco behavior have been identified, namely non-smokers, former smokers, occasional smokers who only smoke when celebrate, and at social events, occasional smokers who smoke only with friends, regular smokers who smoke not more than five cigarettes a day and regular smokers with more than five cigarettes a day. In personality characteristics, emotional stability/lability, impulsivity, and addiction, in our research sample, smokers who

smoke more than five cigarettes per day, scored significantly the highest. The hypothesis has been supported, and we may interpret that daily smokers with more than five pieces of smoked cigarettes are the most neurotic, which coincides with the findings of Ladrazo et al. (2013), Terracciana and Costa (2004), who also recognised a higher emotional lability scores in smokers than non-smokers. Our results on the personality trait of impulsivity fully correspond with Mitchell (1999) as well as Balevich et al. (2013) and others who reported that smokers show statistically significant higher impulsivity scores than non-smokers. Even in our research sample, daily smokers with more than five cigarettes (a day) reached the highest score of impulsivity, and the smallest score was detected in a group of absolute non-smokers. In the personality trait of addiction, the highest score was found in regular smokers again, irrespective of the number of cigarettes a day.

Regarding the last hypothesis, we examined the relationship between the individual situation-motivational factors of experimentation with smoking and regular smoking and the degree of emotional stability/lability. We found that emotional stability/lability significantly correlates with the SMF Escape from problems and with the SMF Family influence in a situation of smoking experimentation. Based on these findings, we can conclude that individuals with low emotional stability/lability who are unable to solve their problems constructively are more vulnerable to escape from their problems through smoking experimentation. This result corresponds to Vidrina et al. (2011) who report that individuals, especially during adolescence, can choose to smoke cigarettes as the way to solve problems during stressful lifetimes, while gradually acquire smoking as a coping strategy for to deal with daily hassles. That can be indirectly related to the tendency of less emotionally stable individuals to take non-constructive patterns of problem-solving from primary models, i.e. family members who also manage their problems through smoking. Regarding regular smoking, we found that emotional stability/lability significantly relate only to SMF Escape from problems. Based on the results of the second and third research hypothesis, we might conclude that individuals with low emotional stability/lability who have managed their problems through a non-constructive smoking getaway strategy have persisted in the acquired pattern of problem-solving and have continued to follow it what leads to regularly smoking as an escape from everyday problems. For such individuals, regular smoking can still mean a way of escaping from daily problems even later, which can significantly influence whether an individual will or will not be able to quit smoking if he or she wants or needs it.

Considering the complexity of the issue and the combination of risk and protective factors that appear to be significant, further research for their interactions is needed. Our results provide a more comprehensive view of individual personality traits about factors complementing the situational context, which are connected with the moment of smoking cigarettes. For these associations should be given sufficient emphasis on both preventive actions as well as on influencing those who have already initiated smoking. The focus should not be directed only on the negative qualities that increase the risk of smoking but also on the positive aspects of individual, such as personality hardiness, which makes the individual more resistant to other influences. For instance, peer group, who can put pressure on an individual to experiment either with smoking or other addictive substances. Likewise, in individuals who have started their regular smoking, such positive personality traits might help relieve a smoking addiction. Research also points to the impact of the group, which is a significant motive for both experimentation and regular use of tobacco products as well.

To sum up, the study's results highlighted the importance of personality and situation-motivational factors of tobacco behavior. They have contributed to a better understanding of

the severe current phenomenon, which further exploration and development can lead to the use of the knowledge in the context of prevention as well as follow-up help for those who have already smoked regularly and want to quit. This work would be conducted throughout the coaching in the meaning of supporting the positive personality traits and a better understanding of the motives that sustain the tobacco use behavior.

References

1. ABDOLLAHI, A. et al. Emotional intelligence, hardiness, and smoking: Protective factors among adolescents. *Journal of Child & Adolescent Substance Abuse*. 2015, 25(1), 11-17. ISSN 1067-828X.
2. BALEVICH, E. C. – WEIN, N.D. – FLORY J. D. Cigarette smoking and measures of impulsivity in a college sample. *Substance Abuse*. 2013, 34(3), 256-262. ISSN: 0889-7077.
3. DUBEY, CH. et al. Five Factor Correlates: A Comparison of Substance Abusers and Non-Substance Abusers. *Journal of the Indian Academy of Applied Psychology*. 2010, 36(1), 107-114. ISSN 0019-4247.
4. EYSENCK, H.J. EYSENCK S. G. B. *Eysenckové osobnostné dotazníky pre dospelých: Príručka.* Bratislava: Psychodiagnostika, 1992, 76 s.
5. KOBASA, S.C. How much stress can you survive? *American Health*. 1984, 3(7), 64–77.
6. KŘIVOHLAVÝ, J. *Psychologie zdraví*. 3. vyd. Praha: Portál, 2009. 280 s. ISBN 978-80-7367-568-4.
7. LADRAZO, M. L. et al. *Drinking alcohol, smoking cigarettes, and drinking coffee*: *Relationship with neuroticism* [online] Reno: University of Nevada, 2013. [cit. 5.12.2017]. Available on: https://faculty.unlv.edu/img/lab/conference%20posters/WPA%202014/Neuroticism%20Smoking%20Drinking%20Poster%2002%20Kim%20Aug%2015%202012%20CONTENT%20AND%20FORMATTING%20DONE.pdf.
8. LoCASTRO, J. et al. Personality, family history, and alcohol use among older men: The VA normative aging study. *Alcoholism: clinical and experimental research*. 2000, 24(4), 501–511. ISSN 1530-0277.
9. MIČKOVÁ, Z., ROJKOVÁ Z. Osobnostné, rodinné a situačno-motivačné faktory pravidelného pitia u vysokoškolákov. In: *Sociální procesy a osobnost 2015*. Otázky a výzvy. Brno, 9.–11. září 2015. Brno: MU, 2016. s.250-256. ISBN 978-80-210-8298-4.
10. MITCHELL, S. H. Measures of impulsivity in cigarette smokers and non-smokers. *Psychopharmacology*. 1999, 146(4), 455-464. ISSN 0033-3158.
11. NOCIAR, A. Európsky školský prieskum o alkohole a iných drogách (ESPAD) v SR za rok 2015. Záverečná správa. Bratislava: VÚDPaP, 2015.
12. NOVÁK, M. et al. *O kouření.* Praha: Avicenum, 1980. 164 s. ISBN 08–060–80.
13. PAULÍK, K. *Psychologie lidské odolnosti.* Praha: Grada, 2010. 240 s. ISBN 97880-247-2959-6.
14. ROJKOVÁ, Z. *Vzťah medzi vybranými faktormi drogového správania z perspektívy vzniku drogovej závislosti. D*izertačná práca. Nitra: UKF, 2010.
15. ROJKOVÁ, Z. *Situačno-motivačné faktory alkoholového správania: Koncept – meranie – overovanie.* Trnava: Univerzita sv. Cyrila a Metoda v Trnave, 2016. ISBN 978-80-8105-801-1.
16. ROJKOVÁ, Z., MIČKOVÁ, Z. Overovanie a modifikácia Dotazníka situačno-motivačných faktorov alkoholového správania. In: *Sociální procesy a osobnost 2015*. Otázky a výzvy. Brno, 9.–11. září 2015. Brno: MU, 2016. s. 308-314. ISBN 978-80-210-8298-4.

17. ROJKOVÁ, Z., POPELKOVÁ, M. Vzťahy medzi rodinnými, osobnostnými a situačno-motivačnými faktormi z perspektívy alkoholovej závislosti. *Psychologie a její kontexty*. 2010, 1(2), 149-160. ISSN 1803-9278.
18. TERRACCIANO, A., COSTA, T. P. Smoking and the Five-Factor Model of personality. *Addiction.* 2004, 99(4), 472-481. ISSN 1360-0443.
19. VIDRINE, J. I. et al. Motivation and Problem Solving (MAPS): Motivationally Based Skills Training for Treating Substance Use. *Cognitive and Behavioral Practice*. 2013, 20(4), 501-516. ISSN: 1077-7229.

Contact

Mgr. Marta Vavrová, Ph.D.
Univerzita Sv. Cyrila a Metoda v Trnave
Námestie Jozefa Herdu 577/2, 917 01 Trnava, Slovakia
Tel: +421910841031
email: marta.vavrova@ucm.sk

Mgr. Karin Gálová
email: mgr.karin.galova@gmail.com

EFEKTIVNÍ TRENDY VE VÝUCE OCHRANY OBYVATELSTVA

EFFECTIVE TRENDS IN THE EXERCISE OF CIVIL PROTECTION

Denisa Charlotte Ralbovská, Dana Rebeka Ralbovská

Abstrakt

Ochrana obyvatelstva a příprava obyvatel na zvládání mimořádných událostí a krizových situací představuje důležitou multiresortní disciplínu. Vzdělávání v oblasti ochrany obyvatelstva a přípravy na efektivní zvládání krizových situacích, tak není jednoduchou záležitostí, právě z pohledu své komplexnosti, kdy se výstupy realizují v několika oborech. Klíčovým faktorem zapojení obyvatel do systému ochrany obyvatelstva je tak možnost vzdělání v této problematice. V rámci příspěvku pojednáváme o vzdělávání v oblasti ochrany obyvatelstva v podmínkách českého školství, o současné platné legislativě a předkládáme možnosti zefektivnění této výuky a přípravy.

Klíčová slova: *ochrana obyvatelstva, výuka, integrovaný záchranný systém*

Abstract

Civil defence and preparation of inhabitant for managing the crisis moments and situation is multi resort discipline. Education in sphere of civil defence is not an easy issue for complexity and multi task level goals. Despite of civil defence is not clearly scientific subject, knowledge of basic conditions are important. Main goal for functional system of civil defence and participation of inhabitant is a functional education. In this article there is described the civil defence education in Czech conditions, todays legislation and also we present the possibilities of making this education and training more effective.

Key words: *population protection, teaching, integrated rescue system*

1 OCHRANA OBYVATELSTVA

Ochrana obyvatelstva je obecně charakterizována jako soubor činností a postupů věcně příslušných orgánů, dalších subjektů i jednotlivých občanů, směřujících k minimalizaci dopadů mimořádných událostí na životy a zdraví obyvatelstva, majetek a životní prostředí.

Širší chápání problematiky ochrany obyvatelstva propojuje tuto činnost s celým spektrem úkolů státu v oblasti krizového řízení, bezpečnosti, obrany státu a umožňuje spolupráci a synergii při plnění těchto úkolů. Skutečný rozměr a význam ochrany obyvatelstva je legislativně podchycen zejména v zákoně 239/ 2000 sb. o integrovaném záchranném systému.

Díky informačním technologiím se prohloubilo vzdělávání všech skupin obyvatelstva v oblasti ochrany obyvatelstva, zejména tam, kde mají reálné zkušenosti s krizovou situací. Řada měst, obcí, firem a společností provozuje informační portály s krizovou tematikou a školí svoje zaměstnance na zvládání krizové situace. Rozsáhlé dobrovolné organizace, zejména sdružení dobrovolných hasičů vykonávají velkou propagační a informační práci se zaměřením na ochranu obyvatelstva. Řada zájmových technických branných, či sportovně branných organizací pomáhá k utváření návyků občanů pro jejich bezpečnost, přežití, či chování v nouzových situacích.

Na mimořádné události a krizové situace by se měli připravovat jak profesionálové z řad pracovníků Integrovanního záchranného systému, tak řadoví obyvatelé. Lze konstatovat, že příprava na mimořádné události v době před ní vychází z potřeb, které jsou oživeny při ní a po

ní. Efektivní a cíleně zaměřená příprava umožňuje, aby později oživené potřeby byly naplňovány postupně, s rozvahou a v celistvosti, aby nenastala panika a aby se lidé nestávali oběťmi i druhotně.
Příprava občanů k obraně státu je zaměřena zejména na:

- zdravotnickou přípravu,
- přípravu k civilní ochraně,
- přípravu k sebeobraně a vzájemné pomoci v krizových situacích vojenského i nevojenského charakteru.

1.1 Vzdělávání v oblasti ochrany obyvatelstva a chování se během mimořádných a krizových situací

Systém výchovy a vzdělávání v oblasti ochrany obyvatelstva a chování se během mimořádných událostí a krizových situací je potřebné (dle našeho mínění) zahájit již v rámci předškolního vzdělávání a jeho zavíšením bude zařazení této problematiky do celoživotního vzdělávání obyvatelstva v rámci profesního vzdělávání.
Dne 5. října 2011 schválila vláda ČR, usnesením č. 734, materiál: Začlenění tématik „Ochrana člověka za mimořádných událostí, péče o zdraví a dopravní výchova“ do studijních programů pedagogických fakult. Cílem materiálu je vytvoření společného vědomostního základu (Studijní základ I, který je určen všem studentům napříč obory k získání základních znalostí a dovedností, jak předcházet mimořádným událostem a jak ochránit sebe a svěřené žáky v případě jejího vzniku) pro vysokoškolské vzdělávání učitelů, který by měl připravit absolventy tak, aby byli schopni adekvátně reagovat při vzniku mimořádné události a ochránili tím sebe a jim svěřené děti. Součástí materiálu jsou i vědomostní základy určené pro přípravu budoucích učitelů, kteří budou danou problematiku vyučovat (Studijní základ II, který je určen studentům oboru Výchova ke zdraví, kteří by se měli navíc naučit tuto problematiku vyučovat a Studijní základ III, který je pro studenty jedno a dvouoborových studijních programů zaměřených na ochranu obyvatelstva). Materiál zpracovalo MV - GŘ HZS ČR, jako orgán pověřený v rámci MV ČR, ve spolupráci s MŠMT ČR, MZ ČR a MD ČR v souladu s původním Harmonogramem realizace opatření ochrany obyvatelstva do roku 2013 s výhledem do roku 2020 (schválený usnesením vlády č. 165 ze dne 25. února 2008, úkol č. 9).
Na uvedený dokument navazuje „Koncepce ochrany obyvatelstva do roku 2020 s výhledem do roku 2030“, jejíž součástí jsou „Základní úkoly pro realizaci stanovených priorit ochrany obyvatelstva“. V oblasti výchovy a vzdělávání vyplynul úkol pro MŠMT ČR (úkol č. 19) zanalyzovat stávající systém výchovy a vzdělávání v oblasti ochrany obyvatelstva (vzdělávání obyvatelstva, odborníků, učitelů, lektorů atp.) navrhnout systémové změny a opatření k odstranění stávajících nedostatků a tento systém legislativně zakotvit.
Zásadním a důležitým krokem vpřed ve vztahu k vzdělávání obyvatelstva v oblasti ochrany obyvatelstva se stala aktualizovaná verze platného vzdělávacího dokumentu pro základní školy, tzv. rámcového vzdělávacího programu (RVP), do kterého byla zahrnuta problematika ochrany člověka za běžných rizik a mimořádných událostí. Došlo ke specifikaci učiva a dílčích cílů. Takto upravený program byl schválen začátkem roku 2013 a učitelé podle něj začali učit od září téhož roku.
Výuka ochrany obyvatelstva, krizových situací a základy branné výchovy byla zařazena do dvou vzdělávacích oblastí a to Člověk a jeho svět a Člověk a společnost odpovídající stupni ZŠ. Základní vzdělávání má tímto náskok před vzděláváním středním, kde tato implementace ještě zcela neproběhla. Výraznou změnou bylo zařazení výuky přípravy k obraně státu do dvou výše napsaných vzdělávacích oblastí rozhodnutím vlády v lednu 2013. Tímto se v obecných vzdělávacích oblastech explicitně objevily prvky ochrany obyvatelstva. (MŠMT, 2016)

A to v sekci učiva:
Člověk, stát a právo
Znalosti žáků z dané vzdělávací oblasti jsou, či by měly být tyto:

- Přiměřeně uplatňuje svá práva včetně práv spotřebitele a respektuje práva a oprávněné zájmy druhých lidí, posoudí význam ochrany lidských práv a svobod, rozumí povinnostem občana při zajišťování obrany státu.

Mezinárodní vztahy, globální svět

- Uvede některé významné mezinárodní organizace a společenství, k nimž má vztah ČR, posoudí jejich význam ve světovém dění a popíše výhody spolupráce mezi státy, včetně zajišťování obrany státu a účasti v zahraničních misích.
- Uvede příklady mezinárodního terorismu a zaujme vlastní postoj ke způsobům jeho potírání, objasní roli ozbrojených sil ČR při zajišťování obrany státu a při řešení krizí nevojenského charakteru.

Člověk ve společnosti

- Zhodnotí a na příkladech doloží význam vzájemné solidarity mezi lidmi, vyjádří své možnosti, jak může v případě potřeby pomáhat lidem v nouzi a jak pomoci v situacích ohrožení a obrany státu.

Schválená učebnice Ochrana člověka za mimořádných událostí má následujících pět dílů:

- Sebeochrana a vzájemná pomoc.
- Havárie s únikem nebezpečných látek, Radiační havárie.
- Živelní pohromy.
- Ochrana člověka za mimořádných událostí – pro první stupeň ZŠ.
- Ochrana člověka za mimořádných událostí – pro střední školy

Opětovně platí pro rozpracování RVP pro I. a II. stupeň ZŠ, gymnázia nemají zatím pro své RVP toto rozpracování zavedeno. (MŠMT, 2016)
POKOS - Jedná se o zkratku slov „příprava obyvatel k obraně státu“. Celý program je v gesci Ministerstva obrany ČR. V rámci výuky se jedná o seznamování žáků s rolí Armády ČR ve společnosti a s úlohou jakou armáda realizuje v rámci demokratického státu. Program je primárně určen pro žáky druhého stupně ZŠ. Jádrem programu jsou akce příslušníků Armády ČR přímo ve školních budovách, nejčastěji tělocvičnách, kde vojáci seznamují žáky s armádou jako institucí, její historií, posláním, zapojením do misí vojenského i humanitárního charakteru. V rámci programu je realizována i ukázka výstroje a výzbroje příslušníků Armády ČR a ukázka prvků první pomoci. Pro funkčnost programu vznikla i metodická příručka, která vychází z bodů v RVP pro ZŠ. Učitelé tak mají možnost pracovat s žáky na základě metodické podpory přímo od resortu obrany. Příručka kromě obecných věcí, zahrnuje i opakovací testovací otázky k probíraným tématům. (POKOS, 2004-2014)
Od roku 2013 je kladen důraz na seznámení studentů s prvky Armády ČR, obranou státu a mezinárodním terorismem. Výuka na ZŠ probíhá jak na prvním tak na druhé stupni.
Ministerstvem obrany byl vytvořen pro pomoc učitelům základních škol, vedoucím pracovníkům těchto škol a koordinátorům školních vzdělávacích programů materiál „Metodické doporučení k problematice přípravy občanů k obraně státu“. Materiál obsahuje rozložení učiva pro 1. a 2. stupeň základních škol včetně očekávaných výstupů, doporučené formy a metody výuky, přehled základních pojmů a podklady pro výuku.
Výchova a vzdělávání jsou tedy úzce vázány na začlenění problematiky ochrany obyvatelstva do systému vzdělávání na školách, který umožňuje dlouhodobě působit na jedince formou pravidelné a povinné výuky. Na školní vzdělávání jsou nadstavbově napojeny projekty vybraných institucí, které při realizaci těchto činností spolupracují. Jedná se zejména o základní složky IZS a nestátní neziskové organizace.

V současné době tak dochází k prohlubování výuky prvků ochrany obyvatelstva a obrany státu zejména na základních školách, které mají nejpokročilejší právní úpravu učiva. Hloubka a kvalita výuky závisí na dané škole a zájmu konkrétního učitele o vyučovaný předmět. Do budoucna by bylo dobré uvažovat o rozšíření výuky i na gymnáziích, tím by bylo zajištěno pokrytí předání základních znalostí mladé generaci dětí, pro které je často školní výuka zásadním zdrojem ucelených a verifikovaných informací, které již později v přehledné formě nenačerpají. S tímto modelem rozšířeného působení na mladé lidi navíc počítá i současná platná Koncepce ochrany obyvatelstva do roku 2020 s výhledem na rok 2030, kde je vzdělávání jednou z klíčových priorit. (MV GŘ HZS, 2020)

1.2 Možnosti zefektivění vzdělávání v oblasti ochrany obyvatelstva a chování se během mimořádných a krizových situací

Zkušenosti z praxe ukázaly na nutnost zefektivnit podstatu i metody vzdělávání studentů v oblasti ochrany obyvatelstva a více je orientovat na praktické aktivity. Lze sice využít zkušenosti získané z teoretické výuky, ale bez vhodně strukturovaného a zabezpečeného praktického výcviku nelze výrazně efektivitu zvýšit. Možnou variantou je využití aktivních výcvikových technik, nácviků, tréninkových modulů a techniky vzdělávání pro řešení krizových ssituací v různých podmínkách.

Vzdělávání studentů k řešení krizových situací by mělo zejména:

- rozvíjet analytické dovednosti studentů;
- vytvářet reálnou představu o vlivu časových, prostorových a logistických faktorů na průběh krizových situací;
- prohlubovat návyky v provádění záchranných a likvidačních prací;
- přispívat ke zdokonalení týmové práce studentů;

V rámci efektivního plnění úkolů při řešení mimořádné události a krizové situace doporučujeme studenty připravovat na využívání postupů vycházejících z následující anglické zkratky. Jednotlivá písmena této zkratky označují varianty pomoci – IMPRESS. Tato vychází z pravidel krizové intervence a znamená, že je potřebné pomáhat:

IMmediacy – ihned
PRoximity – v blízkosti
Expectancy – s očekávanou způsobilostí
Security – bezpečně
Simplicity – jednoduše

IMPRESS znamená, že pomoc má být poskytnuta v časové i prostorové blízkosti události, že má být poskytována s vědomím, že oběť je zdravá a vrátí se ke svým obvyklým úkolům, a že se má uskutečňovat jednoduše a navozovat pocit bezpečí.

V návaznosti na zákon č. 239/2000 Sb., o integrovaném záchranném systému doporučujeme formy a obsah přípravy obyvatelstva v oblasti ochrany obyvatelstva a chování se během mimořádných událostí a krizových situací směřovat k tomu, aby se jedinci umožnil přístup k informacím a přípravě v tomto rozsahu:

- zdroje a místa nebezpečí vzniku mimořádných událostí v okolí bydliště a pracoviště, kde může dojít k ohrožení životů, zdraví a majetku; jiné možné zdroje mimořádných událostí,
- opatření, která jsou připravena k záchraně životů, zdraví a majetku v případě vzniku mimořádných událostí,
- varovný signál „Všeobecná výstraha“ k upozornění na hrozící nebo nastalou mimořádnou událost a chování obyvatelstva po jeho vyhlášení,
- telefonní čísla tísňového volání (150, 155, 156, 158),
- poskytování první pomoci zraněným osobám,
- používání hasících přístrojů a způsoby hašení malých požárů,

- chování obyvatelstva a zaměstnanců při vyhlášení evakuace (obsah evakuačního zavazadla, zásady opuštění bytu),
- místo, kde může obyvatel obce obdržet další informace o rizicích vzniku mimořádné události a připravených opatřeních,
- možnosti a způsoby ukrytí obyvatelstva při vzniku mimořádných událostí, - chování obyvatelstva při úniku nebezpečné látky do životního prostředí,
- příprava a použití prostředků improvizované ochrany povrchu těla a dýchacích orgánů při úniku nebezpečných látek do životního prostředí,
- provádění částečné dekontaminace,
- chování obyvatelstva při vzniku a průběhu povodní,
- chování obyvatelstva při hrozbě použití výbušnin, při nálezu podezřelého předmětu, při obdržení podezřelých zásilek,
- chování obyvatelstva při použití chemických, biologických a jaderných zbraní,
- chování obyvatelstva v případě vyhlášení epidemiologických a epizootických opatření.

V rámci přípravy na vzdělávání v oblasti ochrany obyvatelstva a chování se během mimořádných událostí a krizových situací doporučujeme studenty připravovat na realizaci následujících způsobů edukace:

- školení,
- odborných seminářů,
- odborných kurzů,
- odborných konferencí,
- praktických ověřování znalostí (nácviky, cvičení, tréninky, simulace, modelování).

Zkušenosti s výukou studijního programu ochrana obyvatelstva na ČVUT FBMI ukazují, že se studenti většinou velmi aktivně přistupují k nabízeným praktickým aktivitám typu účast na cvičení, kurzy odborné přípravy, či edukační činnost na středních školách.

Studenti Fakulty biomedicínského inženýrství ČVUT v Praze (konkrétně studijního programu ochrana obyvatelstva) se v měsíci květnu a červnu 2017 zapojili do výchovy žáků ZŠ v oblasti ochrany obyvatelstva. Jednalo se o program Branný den a studenti proškolili přibližně 7000 žáků na 33 školách. Na realizaci se aktivně podílelo 19 studentů. Na konci příspěvku jsou uvedeny ilustrační fotografie.

2 ZÁVĚR

Ochrana obyvatelstva je prvořadou povinností státu. Ochrana obyvatelstva obsahově těsně souvisí s řadou dalších oblastí např. krizovým řízením, civilním nouzovým plánováním, obranou státu. Moduly ochrany obyvatelstva tak mají více možností využití. Systém ochrany obyvatelstva je trvale optimalizován v souladu s koncepčními dokumenty bezpečnostní rady státu a vlády.

Potřebu vzdělávat obyvatelstvo a připravovat jej na aktuální hrozby si odborná veřejnost uvědomuje již dlouhodobě. Vzhledem k tomu, že pravidelné získávání poznatků, jejich procvičování a opakování vedoucí k získání dovedností, návyků a správných postojů je možné jen ve vzdělávacím procesu, pozornost se zaměřila právě tímto směrem.

Aktivní praktické metody vzdělávání studentů umožňují verifikovat výsledky jednotlivých cvičení a nácviků, čímž se obzvláště v oblasti ochrany obyvatelstva posouvají doposud získané teoretické závěry do vyšší kvalitativní úrovně.

Ilustrační fotografie z akce Branný den na ZŠ v Středočeském kraji v roce 2017
Zdroj obrázku č. 1 a 2: http://www.zscerncice.cz/brannyden4.html/





Zdroj obrázku č. 3:
http://www.zsstraskov.cz/index.php?type=Post&id=116&ref=blog&ids=181



Zdroj obrázku č. 4: http://zsweb.rajce.idnes.cz/2016_2017-SOS_den#DSC_0050.jpg



Použitá literatura

1. HALAŠKA, J., RALBOVSKÁ, R. a kol. Ochrana obyvatelstva v případě krizových situací a mimořádných událostí nevojenského charakteru IV. Praha: ČVUT v Praze. 2016. ISBN 978-80-01-05982-1
2. Koncepce ochrany obyvatelstva do roku 2020 s výhledem do roku 2030, MV ČR – generální ředitelství HZS ČR, Praha 2014
3. MV GŘ HZS, Koncepce ochrany obyvatelstva do roku 2020 s výhledem do roku 2030, Praha 2013, dostupné z:http://www.hzscr.cz/clanek/ochrana-obyvatelstva-vceske-republice.aspx, [cit 10. 12. 2017]
4. MŠMT. Rámcový vzdělávací program pro základní vzdělávání, Praha 2016, dostupné z: http://www.nuv.cz/t/rvp-pro-zakladni-vzdelavani [cit. 10. 12. 2017]
5. POKOS. 2004-2014, dostupné z: http://www.pokos.army.cz, [cit. 10. 12. 2017]
6. Příprava občanů k obraně státu. Pro učitele [online]. 2017 [cit. 10. 12. 2017]. Dostupné z: http://www.pokos.army.cz/pro-ucitele
7. Zákon č. 239/2000 Sb., o integrovaném záchranném systému.

Kontaktní údaje

Ing. Denisa Charlotte Ralbovská
ČVUT v Praze, Fakulta biomedicínského inženýrství
Katedra zdravotnických oborů a ochrany obyvatelstva
Sportovců 2311, 272 01 Kladno
Tel: 224 355 043
email: denisa.ralbovska@gmail.com

PhDr. Mgr. Dana Rebeka Ralbovská
ČVUT v Praze, Fakulta biomedicínského inženýrství
Katedra zdravotnických oborů a ochrany obyvatelstva
Sportovců 2311, 272 01 Kladno
Tel: 224 355 043
email: rebeka.ralbovska@fbmi.cvut.cz

ZMYSEL ŽIVOTA A MOŽNOSTI SOCIÁLNEJ PRÁCE V ŠKOLSKOM PROSTREDÍ

THE MEANING OF LIFE AND POSSIBILITIES OF SOCIAL WORK IN SCHOOL ENVIRONMENT

Veronika Vasiľová, Soňa Lovašová

Abstrakt

Príspevok sa orientuje na problematiku zmyslu života v súvislosti s rizikovým správaním detí a mládeže. Autorky sa v prvej časti zameriavajú na všeobecné vymedzenie zmyslu života. V druhej časti je predstavený multidimenzionálny pohľad na zmysel života. Autorky sa špecificky venujú problematike formovania zmyslu života v intenciách zvládania záťaže a sociálnej opory. Cieľom príspevku je poukázať na možnosti sociálnej práce pri formovaní zmyslu života u detí a mládeže, ktorí sú v tomto príspevku považovaní za rizikovú skupinu, nakoľko nenaplnenie potreby zmyslu života, môže viesť k vzniku sociálno-patologických javov.

Kľúčové slová: *Pomáhajúce profesie**.** Sociálna opora. Sociálna práca. Zmysel života. Zvládanie záťaže.*

Abstract

The contribution focuses on the issue of the meaning of life in relation to the risk behaviors of children and youth. In the first part, the authors focus on the general definition of the meaning of life. The second part presents a multidimensional view of the meaning of life. The authors specifically address the issue of shaping the meaning of life in the ways to handle the burden and social support. The aim of the contribution is to point out the possibilities of social work in forming the meaning of life in children and young people who are considered as a risk group in this contribution, because the failure to fulfill the need of meaning of life can lead to socio-pathological phenomena.

Key words: *Helping profession. Social Support. Social Work. Meaning of Life. Coping.*

ÚVOD

Problematika zmysluplnosti a zmyslu života je stále aktuálnou témou. Potreba pochopiť zmysel ľudskej existencie a vedieť si odpovedať na existenciálne otázky sa objavuje už v predškolskom období. Z vývinového hľadiska sa ako rizikové obdobie ukazuje obdobie adolescencie, ktoré súvisí s existenciálnym prebudením. Nenachádzanie potreby zmysluplnosti a zmyslu života môže viesť k vzniku rizikového správania, ktoré môže vyústiť až do sociálno-patologických javov. (Erikson 1968, Tavel 2008, Lichner, Šlosár 2014) Podľa Křivohlavého (2006) o zmysluplnosti ako takej môžeme hovoriť vtedy, keď si stanovíme ciele a naša činnosť smeruje k ich dosiahnutiu.

Vo všeobecnosti ľudská činnosť vychádza zo zmyslu života, ktorý má dosah na samoreguláciu a zdôvodňovanie sociálnych noriem. Zmysel života sa odvíja od hodnotového systému jedinca a dotvára sa životom v spoločnosti a konfrontáciou so spoločenskými normami. (Koscurová 2013) Prežívanie zmyslu života má individuálny charakter, pričom formy prežívania sa menia v priebehu života (Žiaková, Sčensná 2009). Problematike zmyslu života sa venovali viacerí odborníci. Medzi najvýznamnejších odborníkov patria napríklad

Adler, Jung a Frankl. Zakladateľ existenciálnej analýzy a logoterapie Frankl (1997) tvrdí, že v živote nejde o hľadanie zmyslu, ale o jeho odhalenie.

1 VŠEOBECNÉ VYMEDZENIE ZMYSLU ŽIVOTA

O vymedzenie zmysluplnosti a zmyslu života, či existenciálneho zmyslu sa pokúšali viacerí autori. Reker a Wong (1998) chápu zmysel života ako uvedomovanie si účelu vlastnej existencie, ale aj ako úsilie na dosahovanie hodnotných cieľov, ktoré súvisia s pocitom naplnenia. Kováč (2000, in: Čmáriková 2004) považuje zmysel života za univerzálny činiteľ kvality života. Křivohlavý (2006) tvrdí, že hľadanie zmyslu života sa prejavuje ako tvorba osobnej predstavy o usporiadaní vlastného života, ako aj tým, že si neustále kladieme ciele a plány. Jedinec subjektívnu spokojnosť pociťuje vtedy, keď sa mu tieto ciele a plány podarí dosiahnuť. Halama (2007) zmysel života charakterizuje ako konštrukt, ktorý prispieva k optimálnemu fungovaniu človeka a jeho kvalite života. Živčicová (2014) hodnotí zmysel života z pohľadu pozitívnej psychológie ako dôležitý faktor ľudskej existencie a zároveň dodáva, že prežívanie účelovosti vlastného života chráni človeka pred strachom z bezzmyslovosti.

Vo všeobecnosti sa v odbornej literatúre rozlišuje elementárny a ontologický prístup v skúmaní zmyslu života. Podľa elementárneho prístupu sa slovo zmysel používa na vyjadrenie podstaty a štruktúry elementu poznania a činnosti. Ten sa viaže ku konkrétnym interpretáciám komunikácií, situácií alebo objektov. Tento prístup sa využíva najmä v psychoterapii a jeho cieľom je vyjadriť sociálny význam ľudského myslenia a konania. V ontologickom prístupe je zmysel života chápaný ako najvyšší základ osobnosti, ktorý sa prejavuje celkovou životnou orientáciou, svetonázorom, interpretáciou sveta, života a podobne. Dôležitým znakom ontologického prístupu k zmyslu je práve integratívna funkcia, a teda to, že zmysel života pôsobí ako najvyšší integratívny činiteľ ľudského správania a prežívania. (Leontiev 2015) Křivohlavý (2006) rozoznáva nižšiu a vyššiu úroveň problematiky zmysluplnosti. Drobnú každodennú vedomú činnosť charakterizuje ako nižšiu úroveň zmysluplnosti, ktorá zahŕňa aj bežné rozhodovanie v živote. Ako vyššiu úroveň chápe dlhodobé až celoživotné zameranie človeka. Práve táto úroveň zmysluplnosti bytia je predmetom záujmu psychológie a iných vedných disciplín.

V intenciách uvedených definícií môžeme zmysel života chápať ako celkové životné zameranie, životné presvedčenie alebo aj dôvod, pre ktorý človek žije. Wong (2000) však zdôrazňuje, že je potrebné rozlišovať medzi situačným a existenciálnym zmyslom. Existenciálny zmysel v sebe zahŕňa sedem otázok: Kto som? Čo mám robiť vo svojom živote, aby som bol užitočný? Čo môžem urobiť preto, aby som našiel šťastie a životnú spokojnosť? Ako môžem robiť správne a morálne rozhodnutia? Kam patrím a kde mám svoj domov? Aký je zmysel života tvárou v tvár utrpeniu a smrti? Čo sa stane po smrti?

Steger (2006) ďalej rozlišuje obsahovú stránku zmyslu, čiže konkrétne hodnoty, ktoré umožňujú prežívať zmysluplný život a úroveň zmyslu života, ktorá charakterizuje stupeň, na ktorom človek prežíva zmysel svojho života. Taylorová (1983, in: Křivohlavý 2006) pri zaoberaní sa kognitívnou adaptáciou zistila, že ľudia majú zvýšenú potrebu zaoberať sa zmysluplnosťou a zmyslom života práve v záťažovom období. Vtedy hľadajú význam toho, čo sa okolo nich deje, spevňujú svoje hodnoty a menia spôsob zvládania záťažových situácii. Orel (2016) však upozorňuje na to, že akákoľvek kríza prináša nie len úzkosť, strach a obavy, ale často aj narušenie sebaúcty a zmysluplnosti života.

1.1 Potreba zmyslu života

K základným psychologickým charakteristikám človeka patrí aj potreba hľadania zmyslu života. Lichner, Šlosár (2014) uvažujú o predpoklade, že nenaplnenie potreby zmyslu života vedie k negatívnym, často až k patologickým dôsledkom. Obuchowski (1983, in: Halama

2007) považuje potrebu zmyslu života za jednu z troch špecifických ľudských potrieb, spolu s potrebou poznávania a potrebou emocionálneho kontaktu. Pri hľadaní faktorov, ktoré ovplyvňujú vznik potreby zmyslu života rozlišuje nasledovné činitele:

1. intrapsychizácia – schopnosť človeka aktívne sa rozhodovať, s čím súvisí aj schopnosť aktívne utvárať svoje okolie,
2. introspektívnosť – schopnosť sebaanalýzy a sebareflexie,
3. expanzívnosť – týka sa potreby poznania, a teda cieľom je znižovať úzkosť z poznávania nového a zvyšovať schopnosť hodnotiť zmysel svojich činností.

Baumeister a MacKenzie (2014) spracovali teóriu štyroch potrieb, ktoré na jednej strane vytvárajú potrebu zmyslu života a zároveň ich naplnenie prispieva k prežívaniu zmysluplného života. Sú to nasledujúce potreby:

1. potreba účelu, a teda cieľov v živote a s tým súvisí prežívanie svojich činností a udalostí vo svojom živote vo vzťahu k budúcim výsledkom a formovaniu nových cieľov, napríklad v prípade, keď sú staré ciele už dosiahnuté a podobne,
2. potreba účinnosti *(efficacy)* spočíva v snahe človeka o interpretáciu udalostí v takom smere, ktorý podporuje presvedčenie, že človek ovplyvňuje výsledky svojej aktivity a môže ovplyvňovať dôležité veci vo svojom živote.
3. potreba hodnôt *(values)*predstavuje snahu o potvrdenie hodnotnosti a morálnej oprávnenosti svojich činností.
4. potreba sebahodnoty *(self-worth)* je poslednou potrebou, ktorá spočíva v túžbe po vlastnej hodnote.

Halama (2007) v oblasti potreby zmyslu života rozoznáva dve motivačné tendencie:

a) potreba zmyslu života ako potreba kognitívneho rámca – táto potreba sa týka ontologického chápania zmyslu života, ktorý súvisí s vysvetľovaním vonkajšej reality ako takej,
b) potreba zmyslu života ako potreba cieľov – táto potreba je charakterizovaná v intenciách cieľov, ktoré si jedinec kladie počas svojho života a subjektívna spokojnosť a radosť súvisí práve s naplnením týchto cieľov.

1.2 Trojkomponentový model zmyslu života

Reker a Wong (1988) zmysel života definujú ako uvedomovanie si účelu vlastnej existencie a úsilia na dosiahnutie hodnotných cieľov, ktoré prinášajú pocit naplnenia. Sú autormi trojkomponentového modelu zmyslu života, ktorý obsahuje nasledovné komponenty:

a) kognitívny komponent – ide o systém hodnôt a presvedčení, ktoré súvisia s tým ako konkrétny človek prežíva svoj vlastný zmysel života a ako sa vyrovnáva so záťažovými situáciami. Ide o konzistentné chápanie zmyslu života, ktoré poskytuje jedincovi existenciálne porozumenie rôznych životných udalostí, ktoré uzatvára do zmysluplného celku,
b) motivačný komponent – predstavuje behaviorálny aspekt zmyslu života, nakoľko je charakterizovaná realizáciou hodnôt a cieľov, ktoré sú pre daného jedinca dôležité. Predstavuje úsilie, ktoré je človek ochotný investovať do vytýčených cieľov,
c) afektívny komponent – prežívanie spokojnosti s naplnením svojich cieľov a s prítomnosťou pozitívnych postojov a presvedčení.

Tieto komponenty sa navzájom ovplyvňujú a na základe tohto modelu zmyslu života je vytvorená Škála životnej zmysluplnosti, ktorá sa používa na zisťovanie miery životnej zmysluplnosti (Halama 2014). Maddi (2013) na základe charakteristiky trojkomponentového modelu zmyslu života vymedzuje tri klinické formy nezmyselnosti a existenciálnej prázdnoty jedinca, pričom vychádza z nasledujúcich foriem:

1. dobrodružnosť – jedinec svoj zmysel života nachádza v preferovaní rizikových aktivít, pričom v kognitívnej rovine sa bežný život interpretuje ako prázdny, hodnotu

má len to, čo sa prejavuje extrémne alebo nezvyčajne, citová úroveň je na hranici nudy a apatie, motivačná zložka inklinuje k hazardnej činnosti,

2. nihilizmus – kognitívna úroveň sa prejavuje odmietaním všetkého ako neúčelného, citová oblasť sa prejavuje cynickým a agresívnym správaním, znechutením a motivačná zložka je príznačná nízkou úrovňou vnútornej motivácie a daní jedinci sú skôr nezdravo súťažiaci a súperiaci,
3. vegetatívnosť – je považovaná za najťažšiu formu, kde daný jedinec v kognitívnej zložke nenachádza nič zmysluplné, motivačná zložka sa prejavuje ľahostajnosťou, absentuje akcia, aktivita a na afektívnej úrovni daný človek trpí depresiami.

1.3 Hodnoty ako zdroje zmyslu života

Podľa Frankla (1997) je zmysel života prítomný v každom človeku, je potrebné ho len objaviť. Zmysel života taktiež spájal s hodnotami, ktoré vnímal ako základné jadro pri prežívaní zmyslu života. Reker a Chamberlain (2000) považujú hodnoty za základné konštrukty, ktoré tvoria zdroje zmyslu života. Jedinec reflektuje svoje hodnoty a presvedčenia práve vo chvíľach, kedy spochybňuje svoj zmysel života. Žiaková a Sčensná (2009) konštatujú, že už rôzne výskumy poukázali na to, že ak človek dodržiava svoje hodnoty a dosahuje svoje ciele, tak vníma svoj život perspektívnejšie. Příkaský (2000) termín hodnota charakterizuje ako kategóriu, ktorá je vyjadrením významu pre človeka, a teda usmerňuje jeho správanie. Rozlišuje hodnoty udržiavacie (jedlo, peniaze), hodnoty rozvíjajúce osobnosť (veda, umenie), hodnoty v prospech druhého (mravnosť) a hodnoty absolútne dobré, ktoré definuje ako objektívne hodnoty, ktoré majú svoj vnútorný obsah nemenný a rozvíjajú mravnú hodnotu človeka. Křivohlavý (2006) hodnoty definuje ako psychologický konštrukt a považuje ich za zdroje zmysluplnosti života. Frankl (1997) hodnoty delí do troch kategórii:

1) tvorivé – ide o hodnoty, ktoré uplatňujeme pri fyzickej práci, službe ľudom, a činnostiach, ktoré pretvárajú svet,
2) zážitkové – prežívanie vnútorného sveta a vzťahov, lásky, zážitkov, umenia, prírody a pod.,
3) postojové – v rebríčku hodnôt ich radí najvyššie, ovplyvňujú zvládanie náročných životných situácii, prípadne postoj k nezmeniteľnej skutočnosti v živote.

1.4 Existenciálne vymedzenie zmyslu života

Bytím človeka vo svete sa zaoberá aj daseinsanalýza. Ide o jeden z dvoch významných prístupov existenciálnej psychológie. Existenciálny prístup v psychológii vychádza z existenciálnej filozofie a fenomenológie Husserla a Heideggera. Začala sa rozvíjať v druhej polovici 20. str. Za hlavných predstaviteľov sú považovaní Binswanger a Bossa. Predstavitelia tohto prístupu človeka považujú za slobodnú bytosť zodpovednú za svoju existenciu. Druhým významným prístupom je logoterapia. Zakladateľ logoterapie Frankl začal svoj koncept spracovávať ešte pred druhou svetovou vojnou. Jeho škola je považovaná za tretiu viedenskú školu psychoterapie. V tomto prístupe je človek chápaný ako jedinečná bytosť a súčasne trojdimenzionálnu, pretože má biologický, psychologický a duchovný rozmer. (Uhrová 2007) Rovnako aj Reker a Chamberlain (2000) zdôrazňujú, že existencializmus vzbudil záujem o otázky zmysluplnosti života.

Existenciálni psychológovia považujú za základný atribút ľudskej existencie „vrhnutosť“, a teda uvedomenie si faktu, že sme boli vystavení podmienkam sveta, ktoré sme si nevybrali a „existenciálnosť“, ktoré chápu ako poznanie samého seba, ako jedinca, ktorý má možnosť voľby a zodpovednosť za svoje rozhodnutia (Račková 2009).

Podľa Halamu (2007) rôzne výskumy, ktoré sa zaoberali existenciálnou úzkosťou poukázali na zvýšenie existenciálnych otázok a existenciálnej úzkosti práve v období adolescencie. Hacker (1994, in: Tavel, Kanálik 2008) existenciálnu úzkosť v tomto vývinovom období hodnotí ako prirodzený jav, ktorý súvisí s dozrievaním a formovaním osobnosti jedinca.

2 MULTIDIMENZIONÁLNY POHĽAD NA ZMYSEL ŽIVOTA

Leontiev (2015) zdôrazňuje multidimenzionálny pohľad na zmysel života. Ten hodnotí ako dôležitý konštrukt, ktorý ovplyvňuje mentálne zdravie jedinca. Račková (2009) multidimenzionálny pohľad hodnotí ako integratívny prístup, ktorý spája rozmanitosť pohľadov na zmysel života. Ide o nasledujúce prístupy:

a) zmysluplnosť života (poznávací prístup) – existencionálno-kognitívny aspekt, ktorý chápe zmysel života ako porozumenie životu a interpretáciu života, ktorá je zmysluplná pre daného jedinca,
b) zmysluplnosť života (cieľový prístup) – kauzálno-deterministické chápanie považuje ľudské správanie za účelové, pričom chybné koncepcie života vedú k vytváraniu fikcií a neadekvátnemu životnému štýlu, napr. alkoholizmus, delikvencia a podobne,
c) zmysel života (viacdimenzionálny prístup) – ide o spojenie oboch prístupov, kognitívneho a cieľového.

Koscurová (2013) zdôrazňuje, že zmysel života sa uskutočňuje v dimenziách kvalít života, ktoré vyplývajú z nasledovných podmienok:

1. Objektívnych podmienok – ekonomické, sociálne, ekologické a podobne, napríklad trávenie voľného času, zabezpečenie pravidelného finančného príjmu, celoživotné vzdelávanie.
2. Subjektívny stav – hodnotový systém človeka, postoj k životu, spolupatričnosť, empatia, životospráva a podobne.
3. Zodpovednosť zachovania ľudského rodu – rodová a spoločenská zodpovednosť.
4. Zodpovednosť každého jedinca za kvalitu svojho života – rodina, obec, komunita, štát, tretí sektor a spoluúčasť medzi týmito subjektmi. (Koscurová 2013)

2.1 Zmysluplnosť života u detí a mládeže

Zaoberanie sa zmysluplnosťou života je dôležitou súčasťou vývinu osobnosti dieťaťa a dospievajúceho človeka. Tavel, Kanálik (2008) zdôrazňujú, že prežívanie zmysluplnosti vplýva v mladom veku na psychické zdravie a kvalitu života. Aj deti potrebujú chápať zmysluplné súvislosti. Alexová, Vopel (1992, in: Tavel, Kanálik 2008) tvrdia, že už deti v predškolskom veku filozofujú a zaoberajú sa zmyslom života. Prejavuje sa to otázkami: „Odkiaľ prichádzam?“ „Načo žijem?“ alebo „Čo majú ľudia robiť na svete?“. Viacerí autori (Lukasová 1997, Bakalář 2000, Kratochvíl 2001, Pherson 2004, in: Tavel, Kanálik 2008) zdôrazňujú, že tieto otázky je potrebné brať vážne. Dieťa hľadá odpovede na tieto otázky kvôli svojmu pocitu bezpečia a istoty, ako aj kvôli objasneniu postavenia seba vo svete a zmyslu existencie.

Na existenciálnej úrovni sa otázkami zmyslu života často zaoberajú ľudia až v období adolescencie (Tavel 2008). Adolescencia je najvýznamnejším vývinovým obdobím z pohľadu problematiky zmyslu života. Ide o obdobie hľadania vlastnej identity a nachádzania podoby zmyslu vlastného života. (Erikson 1968, in: Lajčiaková 2012) Rovnako aj Lichner, Šlosár (2014) dávajú do popredia vývinové obdobie adolescencie, ktoré hodnotia ako kritické obdobie vo formovaní zmyslu života. Podľa Halamu (2007) je adolescencia dôležitým vývinovým obdobím, ktoré je považované za obdobie existenciálneho prebudenia. Dochádza k emocionálnymi zmenám a konfliktom, pričom nenaplnenie potreby

zmyslu života môže viesť až ku sociálno-patologickému správaniu. Piaget (1997, in: Lajčiaková 2012) tvrdí, že adolescencia je obdobie medzi detstvom a dospelosťou, kedy sa jedinec musí vyrovnať s množstvom existenciálnych otázok. Tavel (2009) zdôrazňuje, že pri práci s deťmi a mládežou je veľmi vhodné využívať psychologické techniky, psychologické a psychoterapeutické hry so zameraním na zmysel života. Ide o hry, ktoré by v praxi mohol využívať sociálny pracovník. Natvig, Hanestad a Samdal (2006, in: Tavel 2009) realizovali výskum, v ktorom sa zaoberali zmyslom života u detí a adolescentov. Skúmali vzťah medzi zdrojmi školy, stresom a pocitom zmysluplnosti. Výsledky výskumu ukázali, že čím väčší je pocit zmysluplnosti, tým menej žiaci pociťujú stres a záťaž v školskom prostredí.

2.2 Zvládanie záťaže, sociálna opora a zmysel života

Křivohlavý (2006) zmysel života definuje ako pomerne ustálený faktor, ktorý ovplyvňuje zvládanie bežných, ale aj záťažových situácii. Vzájomný vzťah zmyslu života a zvládania záťaže je jednou z najčastejšie skúmaných tém týkajúcich sa problematiky zmyslu života. Rovnako aj Frankl (1997) zdôrazňoval, že životná zmysluplnosť má vplyv na vyrovnávanie sa so záťažovými situáciami v živote. Svoje tvrdenie dokazoval aj osobnými skúsenosťami z koncentračného tábora. Tí, ktorí vedeli prečo žiť lepšie znášali každodenné utrpenie, s ktorým sa v koncentračnom tábore stretávali.

Otázka zvládania záťaže je v súčasnosti považovaná za veľmi dôležitú, nakoľko zvládanie súvisí so zdravím, subjektívnou pohodou jedinca, jeho emočnou senzitivitou a správaním. (Ruiselová 2006). Lazarus a Folkmanová (1984) chápu zvládanie ako všetky kognitívne, emocionálne a behaviorálne snahy jedinca, ktoré mu slúžia k tomu, aby mohol vyriešiť alebo redukovať požiadavky, ktoré ho zaťažujú, tým, že prekračujú jeho osobnostné schopnosti spracovania problémov. Pre zvládanie záťaže je charakteristické, že ide o vysporiadanie sa s internými alebo externými stresormi. Zdôrazňujú, že nemôžeme hovoriť o copingu, ak sa zvládacie správanie neodlišuje od automatizovaného správania, ale iba vtedy môžeme hovoriť o zvládaní záťaže (copingu), ak požiadavky, ktoré sú na jedinca kladené, prekračujú jeho adaptívne zdroje. Preto vymedzili dve základné funkcie zvládania:

1. zacielenie na zmenu zaťažujúcich vonkajších podmienok, pričom ide o tzv. inštrumentálny, resp. problémovo riešený coping,
2. zacielenie na reguláciu emócii, pričom ide o tzv. emočne orientovaný coping.

Pri práci s deťmi je dôležité zameriavať sa na závažné, ale aj menej závažné problémy v správaní žiakov, pretože ich prehliadanie alebo bagatelizovanie môže viesť ku závažnejším poruchám správania (Dávidová Vidrová 2013). Začiatkom školskej dochádzky získava dieťa podriadenú rolu žiaka, ktorú musí prijať, ako aj autoritu svojich učiteľov. V tomto období začína byť hodnotené na základe svojich výsledkov, ktoré si musí zaslúžiť, nezískava ich automaticky, čo môže byť značne stresujúce. (Končeková 2007) Je dôležité, aby jedinec v tomto období nadobudol pocit, že jeho vlastná usilovnosť má význam a aby sa naučil dôverovať svojim vlastným schopnostiam. Ak škola alebo rodina vyvolá u dieťaťa pocit zlyhania, objaví sa druhý pól značiaci nezvládnutie – pocit menejcennosti. (Oravcová 2006) Pre dieťa môže byť tiež zaťažujúce ak mu rodina vštiepila normy, ktoré sú odlišné od noriem v škole, čo spôsobuje názorový a citový konflikt. Dochádza k tomu zvlášť v prípadoch, kedy príslušníci rodiny patria k etnickej menšie, ku skupine sociálne a ekonomicky oslabených obyvateľov alebo ak ide o rodinu agresívnu a násilnú. (Fontana 2014)

S témou zvládania záťaže jednoznačne súvisí aj pojem sociálna opora. Sociálna opora má kladný vplyv na rozvoj psychického zdravia a taktiež má pre človeka ochranný charakter v priebehu celého života (Křivohlavý 2012). Podľa výskumu Halamu a Semančovej (2014) existuje vzťah medzi vnímanou sociálnou oporou a zmyslom života. Caplan a Caplan (1993) charakterizujú termín sociálna opora ako medziľudské spojenie a vzťahy daného človeka s

ľuďmi v skupine, na ktorých sa tento človek môže spoľahnúť, ktorí mu poskytujú emocionálnu podporu a potrebné zdroje vo chvíľach, keď to potrebuje.

2.3 Sociálna práca s deťmi a mládežou

Na Slovensku sociálna práca v školskom prostredí nie je legislatívne ukotvená. Viacerí autori (Labath 1991, Matulayová 2006, Koscurová 2013, Skyba 2015) v našich podmienkach však apelujú na potrebu etablovania sociálnej práce v školskom prostredí, ktorej primárnym cieľom by malo byť predchádzanie rizikovému správaniu u detí a mládeže a vzniku sociálno-patologických javov. V zahraničí, hlavne v USA je tzv. školská sociálna práca považovaná za súčasť moderného školského systému, pričom sociálni pracovníci sú vnímaní ako členovia multidisciplinárneho školského tímu. Hlavným cieľom ich činnosti je ako preventívna činnosť, tak aj posilňovanie rodiny a zabezpečovanie otvorenej komunikácie medzi školou a rodinou (Dupper 2003). V zahraničí je základ školskej sociálnej práce tvorený sociálnou prácou s mládežou (Koscurová 2013), ktorú môžeme vymedziť ako formu profesionálneho konania vykonávanú so skupinou mladých ľudí, realizovanú buď jednotlivcami alebo organizáciami (Šiňanská 2011).

Najväčší prínos sociálnej práce v školskom prostredí sa ukazuje práve v interakcii medzi sociálnou prácou a vzdelávaním, pričom primárnym cieľom je zvyšovanie kvality života žiakov a to takým spôsobom, že žiaci rozširujú svoje sociálne spôsobilosti a získavajú kompetencie a schopnosti, ktoré sú potrebné nie len vo vzdelávacom procese, ale aj v živote. (Skyba 2015) V rámci poradenského rozhovoru s dieťaťom môže sociálny pracovník využívať techniky zamerané na vedomé zvládanie záťaže a hľadanie zmysluplnosti. Kľúčová je v tomto prípade logoterapia a podpora jedinca v hľadaní a naplnení konkrétneho zmyslu naplnením tvorivých, zážitkových a postojových hodnôt. Pocit zmysluplnosti vlastnej existencie je veľmi silným protektívnym faktorom a človek, ktorý vníma vo svojom konaní zmysel je schopný vydržať aj vo veľmi nepriaznivých životných podmienkach. (Prochádzka 2014)

3 ZÁVER

Problematiku zmyslu života je potrebné vnímať v kontexte iných duchovných potrieb človeka. Hľadanie zmysluplnosti a zmyslu života je považované za normálny proces pri vytváraní identity jedinca. Otázka, kedy a v akom veku sa človek začína zaoberať zmysluplnosťou existencie je stále aktuálna a diskutovaná. (Tavel 2009)

Křivohlavý (2006) zdôrazňuje, že je potrebné zaoberať sa problematikou zmyslu života na osobnej, ale aj spoločenskej úrovni. Ak sa nebudeme týmto otázkam venovať na osobnej úrovni, môže to viesť k rôznym negatívnym aspektom v osobnom živote, ktoré ovplyvňujú aj celospoločenské dianie. Sokol (2002, in: Křivohlavý 2006) tvrdí, že jednotlivci, ale aj spoločnosť sa začali zaoberať svojim životom a jeho naplnením až v novoveku a prijímali zmysluplnosť života ako svoju osobnú úlohu. Ľudia, ktorí takto nazerajú na svoj život, potrebujú slobodu, aby ich zámery a ciele mohli vyústi do zmysluplného celku. V tomto období sa ukázalo, že spoločnosť si dokáže vážiť zrelé osoby, ktoré sami vedia, čo chcú v živote dosiahnuť, majú svoje ciele a zámery.

Sociálna práca patrí medzi vedné disciplíny, ktoré sa zaoberajú zmysluplnosťou a zmyslom života. Hlavným cieľom sociálnej práce s deťmi a mládežou je prevencia rizikového správania. Na základe teoretického vymedzenia zmyslu života je možné konštatovať, že bezzmyselnosť, resp. nenaplnenie potreby zmyslu života môže viesť k vzniku sociálno-patologického správania. Cieľovou skupinou sociálnych pracovníkov pracujúcich v školskom prostredí by prioritne mali byť žiaci vo vývinovom období, ktoré sa ukazuje ako kritické obdobie formovania vlastnej identity a zmyslu života. Sociálni pracovníci v školskom

prostredí, tak môžu byť nápomocní pri formovaní zmyslu života mládeže a aj takýmto spôsobom predchádzať rizikovému a sociálno-patologickému správaniu u detí a mládeže.

Použitá literatúra

1. BAUMEISTER, R. F., MACKENZIE, M. J. Meaning in Life: Nature, Needs, and Myths. In: BATTHYANY A. and P. RUSSO-NETZER, eds. *Meaning in Positive and Existential Psychology*. New York: Springer. 2014. s. 25-37. ISBN 978-1-4939-0308-5.
2. CAPLAN, G., CAPLAN, R. B. *Mental Health Consultation and Collaboration.* USA: Waveland Press, 1993.ISBN 1-57766-073-0.
3. CIMRMANNOVÁ, T. *Krize a význam pomáhajících prvního kontaktu. Aplikace v kontextu rodinného násilí.* Praha: Univerzita Karlova v Praze, 2013. ISBN 978-80-246-2205-7.
4. ČMÁRIKOVÁ, A. O vzťahu zmyslu života a kvality života. In: Džuka, J. ed. *Psychologické dimenzie kvality života.* Prešov: Prešovská univerzita v Prešove, 2004. s.189-199. ISBN 80-8068-282-8.
5. DÁVIDOVÁ VIDROVÁ, A. Úloha školského sociálneho pedagóga v školách, jeho preventívna činnosť a práca s deťmi zo sociálne znevýhodneného prostredia. *Prohuman* [online]. 2013 [cit. 2017-11-11]. ISSN 1338-1415. Dostupné z: http://www.prohuman.sk/pedagogika/uloha-skolskeho-socialneho-pedagoga-v-skolach-jeho-preventivna-cinnost-a-praca-s-detmi-zo-soc-znevyhod-prostredia
6. DUPPER, D. *School Social Work: Skills and Interventions for Effective Practice.* USA: John Wiley, 2003. ISBN 0-471-39571-4.
7. FONTANA, D. .*Psychologie ve školní praxi.* Praha: Portál, 2014. ISBN 978-80-2620-741-2.
8. FRANKL, V. E. *Vůle k smyslu.* Brno: Cesty, 1997. ISBN 978-80-85139-29-2.
9. HALAMA, P. *Zmysel života z pohľadu psychológie.* Bratislava: SAP, 2007. ISBN 978-80-8095-023-1.
10. HALAMA, P. a S. SEMANCOVÁ. *Sociálne a religiózne koreláty zmysluplnosti života u ľudí v staršom veku* [online]. 2014 [cit. 2017-11-11]. Dostupné z: http://e-psycholog.eu/pdf/halama_semancova.pdf
11. KONČEKOVÁ, Ľ. *Vývinová psychológia.* Prešov: Vydavateľstvo Michala Vaška, 2007. ISBN 978-80-7165-614-2.
12. KOSCUROVÁ, Z. *Sociálna práca v škole. Teoreticko-výskumné reflexie v školskom prostredí.* Bratislava: Iris, 2013. ISBN 978-8089238-91-0.
13. KŘIVOHLAVÝ, J. *Psychologie smysluplnosti existence: otázky na vrcholu života.* Praha: Grada, 2006. ISBN 978-80-246-1290-9.
14. KŘIVOHLAVÝ, J. *Horieť, ale nevyhorieť.* Bratislava: Karmelitánske nakladateľstvo, 2012. ISBN 978-80-8135-003-0.
15. LAJČIAKOVÁ, P. Analýza profilu osobného zmyslu života adolescentov. *Sociálne a politické analýzy*, 2012. 6, 1, 90-104. ISSN 1337 5555.
16. LAZARUS, R. S., FOLKMAN, S. *Stress, Appraisal and Coping.* New York: Springer Publishing Company, 1984. ISBN 0- 8261- 4191-9.
17. LICHNER, V. a D. ŠLOSÁR. Zmysel života v kontexte novodobých závislostí adolescentov ako rizikovej skupiny sociálnej práce. In: ŽIAKOVÁ, E. ed. *Ako nájsť zmysel života v sociálnej práci s rizikovými skupinami. 2. ročník Košických dní sociálnej práce.* Zborník príspevkov z vedeckej konferencie s medzinárodnou účasťou, ktorá sa konala 22.11.2013 v Košiciach. Košice: Katedra sociálnej práce Filozofickej fakulty UPJŠ Košice, 2014. s. 243-249. ISBN 978-80-8152-140-9.

18. LEONTIEV, D. A. *Positive Psychology in Search for Meaning.* USA: Taylor & Francis, 2015. ISBN 978-1-138-80658-0.
19. MADDI, S. R. *Hardiness: Turning Stresful Circumstances into Resilient Growth.* USA: Springer Publishing Company, 2013.. ISBN 978-94-007-5221-4.
20. MATULAYOVÁ, T. a N. MATULAYOVÁ. Školská sociálna práca – potreba a perspektívy. School Social Work –Need and Perspectives. *Sociální práce/ Sociálna práca,* 2006., 1, 101- 108. ISSN 1213-6204.
21. OPENSHAW, L. *Social work in Schools. Principles and Practice.* New York: TheGuilford Press, 2008. ISBN 978-1-59385-578-9.
22. ORAVCOVÁ, J. *Vývinová psychológia.* Banská Bystrica: Univerzita Mateja Bela v Banskej Bystrici, 2006. ISBN 80-8070-510.0.
23. OREL, M. *Psychopatologie. Náuka o němocech duše. 2*. Aktualizované a doplněné vydání. Praha: Grada, 2016.. ISBN 978-80-2475-516-8.
24. PROCHÁZKA, R. *Teorie a praxe poradenské psychologie.* Praha: Grada, 2014. ISBN 978-80-2474-451-3.
25. PŘÍKASKÝ, V. J. *Učebnice základu etiky.* Kostelní Vydří: Karmelitánske nakladateľství. 2000. ISBN 978-80-7192-505-5.
26. RAČKOVÁ, M. Existenciálny zmysel a behaviorálne charakteristiky spojené s fajčením cigariet u vysokoškolákov. *Sociálne a politické analýzy*, 2009, 3, 2, 47-83. ISSN 1337-5555.
27. REKER, G. T. and P. T. P. WONG. Aging as an individual process: Toward a theory of personal meaning. In: BIRREN, J. E. and V. L. BENGTSON, eds. *Emergent theories of aging.* New York: Springer Publishing Company, 1988. s. 214-246. ISBN 0-8261-6250-9.
28. REKER, G. T. and CHAMBERLAIN, K. *Exploring Existencial Meaning: Optimizing human development across the life span.* USA: Sage Publications, 2000. ISBN 0-7619-0993-1.
29. RUISELOVÁ, Z. et al. *Štýly zvládania záťaže a osobnosť.* Bratislava: Ústav experimentálnej psychológie SAV, 2006. ISBN 80-88910-23-4.
30. SKYBA, M. *Školská sociálna práca.* Prešov: Prešovská univerzita v Prešove, 2015. ISBN 978-80-555-1287-7.
31. SLEZÁČKOVÁ, A. Průvodce pozitivní psychologií. Nové přístupy, aktuální poznatky, praktické aplikace. Praha: Grada, 2012. ISBN 978-80-247-3507-8.
32. STEGER, M. F. et al. The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 2006, 53, 80-93. ISSN 0022-0167.
33. ŠIŇANSKÁ, K. Prevencia v sociálnej prác a jej význam pre prax sociálneho pracovníka. In: E. ŽIAKOVÁ et al. eds. *Sociálna práca. Teoretické východiská a praktické kontexty*. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2011. s. 246-271. ISBN 978-80-7097-870-2.
34. TAVEL, P. a T. KANÁLIK. Praktické možnosti psychologickej práce s témou zmyslu života u detí a mládeže. *E-psychologie*, 2008.. 2, 36-46. ISSN 1802-8853.
35. UHROVÁ, E. D. Humanistická psychológia. In: HERETIK, A. et al. eds. *Klinická psychológia.* Nové Zámky: Psychoprof, 2007. s. 59-98. ISBN 978-80-89322-00-8.
36. WONG, P. T. The Human Quest for Meaning. Theories, Research and Applications. USA: Taylor & Francis, 2000. ISBN 978-0-415-87677-3.
37. ŽIAKOVÁ, E. a M. SČENSNÁ. Zmysel života dlhodobo nezamestnaných. Špecifiká sociálnej práce s touto skupinou klientov. In: D. ŠLOSÁR, ed. *Migrácia – chudoba – nezamestnanosť.* Zborník príspevkov z vedeckej konferencie

s medzinárodnou účasťou konanej dňa 11.12.2009 v Košiciach. Košice: KSK, 2009. s. 28-37. ISBN 978-80-970306-5.
38. ŽIAKOVÁ, E. Cesta sociálneho pracovníka k zmyslu jeho práce. In: ŽIAKOVÁ, E. a D. ŠLOSÁR, eds. *Sociálna práca – cesta k zmyslu života. Košické dni sociálnej práce.* Zborník príspevkov z vedeckej konferencie s medzinárodnou účasťou konanej dňa 6.12.2012 v Košiciach. Košice: Katedra sociálnej práce Filozofickej fakulty UPJŠ Košice, 2013. s. 6-7. ISBN 978-80-8152-012-9.
39. ŽIVČICOVÁ, E. Zmysel života v kontexte kvality života. *Sociálno-ekonomická revue*, 2014. 3, 104-112. ISSN 1336-3727.

Kontaktné údaje

Mgr. Veronika Vasiľová, doc. Mgr. Soňa Lovašová, PhD.
Katedra sociálnej práce Filozofickej fakulty Univerzity Pavla Jozefa Šafárika v Košiciach
Moyzesova 9, 040 59 Košice
email: veronika.vasilova91@gmail.com, sona.lovasova@upjs.sk

INTEGRÁCIA IMIGRANTOV V KONTEXTE HEURISTICKÉHO MODELU

INTEGRATION OF IMMIGRANTS IN CONTEXT OF HEURISTIC MODEL

Jana Plavnická, Dušan Šlosár

Abstrakt

Príspevok sa orientuje na skúmanie integračných procesov imigrantov z pohľadu heuristického modelu integrácie. Heuristická definícia integrácie hovorí o troch analyticky odlišných dimenziách, a to o právno-politickej, sociálno-ekonomickej a kultúrno-náboženskej dimenzii. Tieto dimenzie sú prepojené s tromi úrovňami integrácie z hľadiska dôležitosti jej merania. Tieto úrovne tvorí individuálna, kolektívna a inštitucionálna úroveň. Cieľom príspevku je prepojenie heuristického modelu integrácie s integračnou politikou v podmienkach Slovenskej republiky.

Kľúčové slová: *integrácia. heuristický model, imigranti*

Abstract

The paper focuses on examining integration processes of immigrants from the heuristic model of integration. Heuristic definition of integration speaks of three analytically different dimensions, namely the legal, political, socio-economic and cultural-religious dimension. These dimensions are linked to three levels of integration in terms of the importance of its measurement. These levels form an individual, collective, and institutional level. The aim of the contribution is to link the heuristic model of integration with integration policy in the conditions of the Slovak Republic.

Key words: *integration, heuristic model, immigrants*

ÚVOD

V európskych štátoch je v súčasnosti najviac diskutovanou témou práve integrácia imigrantov. Kontext týchto diskusií sa v jednotlivých krajinách historicky líši. Tento nejednoznačný postoj voči integrácii sa odráža aj na úrovni Európskej únie. Existujú pokusy vytvorenia spoločnej prisťahovaleckej politiky, napríklad Amsterdamská zmluva, Summit v Tampere a pod., ktoré reflektujú aktuálny dominantný záujem o regulačné riadenie integrácie imigrantov na úrovni Európskej únie. Problémom v oblasti integrácie je jej odlišné definovanie a vnímanie v rôznych krajinách, pričom mnoho krát absentujú opatrenia integračnej politiky smerujúce k prijímajúcej spoločnosti.

Prichádzajúci imigranti sú prijímajúcou spoločnosťou vnímaní ako odlišní, či už z dôvodu ich právneho postavenia, fyzického vzhľadu, kultúrnych či náboženských dôvodov alebo z dôvodu kombinácie týchto prvkov. Tieto faktory ovplyvňujú nie len medziľudské vzťahy, ale môžu mať vplyv aj na diskriminačné praktiky a smerovať k problematickým medzietnickým vzťahom. Imigranti sú nútení získať si miesto v prijímajúcej spoločnosti, nájsť si zamestnanie, adekvátne bývanie, sú nútení jazykovo, sociálne či kultúrne sa integrovať. Z uvedených oblastí integračného procesu imigrantov je možné odvodiť základnú a zároveň komplexnú heuristickú definíciu integrácie, ktorá poukazuje na proces stávania sa súčasťou prijímajúcej spoločnosti. Integračné procesy imigrantov by mali vychádzať práve

z heuristického modelu, ktorý možno považovať za najužitočnejší vo vzťahu k empirickému štúdiu týchto procesov.

1 HEURISTICKÝ MODEL INTEGRÁCIE IMIGRANTOV

Vo všeobecnosti je heuristika vedou skúmajúcou tvorivé myslenie a heuristická činnosť je zameraná na spôsob hľadania riešenia problémov (Maňák, Švec 2003). Opierajúc sa o tento princíp Harrison (1991) uvádza, že sociálny pracovník v rámci heuristického modelu hľadá rôzne zdroje informácií a vníma problémovú situáciu svojich klientov v kontexte viacerých súvislostí, pričom neopomína napríklad morálny aspekt. Heuristická definícia vníma integráciu ako proces, kedy sa imigranti stávajú prijatou súčasťou hostiteľskej spoločnosti. Táto definícia vykazuje nasledovné charakteristiky:

- zdôrazňuje proces integrácie a nie konečný výsledok,
- neuvádza konkrétne požiadavky na prijatie zo strany prijímajúcej spoločnosti,
- stojí v protiklade s asimilačnými, multikultúrnymi či pluralistickými modelmi integrácie (Penninx 2001).

Základom heuristického modelu integrácie imigrantov sú tri dimenzie, ktoré sú analyticky odlišné a predstavujú právno-politickú, sociálno-ekonomickú a kultúrno-náboženskú dimenziu, pričom sú vzájomne prepojené tromi úrovňami integrácie, a to individuálnou, kolektívnou a inštitucionálnou úrovňou. Podľa Entzingera (2000) tieto úrovne zodpovedajú trom hlavným faktorom v integračných procesoch imigrantov, ktorými sú štát, trh a národ. Zameranie na uvedené dimenzie umožňuje presunúť pozornosť z imigrantov na ich vzťah s prijímajúcou spoločnosťou. Preto nie je potrebné iba skúmanie čo imigranti robia, s kým spolupracujú či ako sa identifikujú, ale najmä to, či sú spoločnosťou prijatí a ako sú umiestnení v každej z týchto dimenzií.

Pri definovaní integrácie imigrantov je nutné vymedziť zainteresovaných aktérov. Na jednej strane sú to samotní imigranti so svojimi individuálnymi charakteristikami, snahou o integráciu či adaptáciou a na strane druhej je to prijímajúca spoločnosť s vlastnými charakteristikami a reakciami voči týmto jednotlivcom. Smerovanie a výsledky integračných procesov sú ovplyvňované práve interakciami medzi týmito aktérmi. Pokiaľ ide o politickú moc a zdroje nepredstavujú títo účastníci rovnakých partnerov. Inštitucionálna štruktúra a reakcie prijímajúcej spoločnosti sú pre imigrantov rozhodujúce vo vzťahu k úspešnosti integračného procesu. (Penninx, Garcés-Mescareñas 2016)

1.1 Dimenzie integrácie

Prvá **právno-politická dimenzia** poukazuje na základnú otázku smerujúcu k zisťovaniu, či sú imigranti považovaní za plnohodnotných členov politického spoločenstva prijímajúcej krajiny (Penninx et al. 2004). Je to práve právno-politický rozmer, ktorý má osobitnú dôležitosť v rámci heuristického modelu integrácie, nakoľko podmieňuje sociálno-ekonomickú a kultúrno-náboženskú dimenziu (Fennem, Tillie 2001). Túto dôležitosť možno podľa Moora (2001) na jednej strane posudzovať z hľadiska jednotlivých imigrantov, ich právneho postavenia a prideleného práva a z hľadiska snahy o integráciu. Príkladom môžu byť dlhé časove obdobia neistoty vo vzťahu k čakaniu na udelenie či neudelenie azylu, ktoré môžu negatívne vplývať na ich pripravenosť a snahu o integráciu. Na druhej strane k účasti na integrácii neprispieva vylúčenie legálnych imigrantov z prístupu k lokálnym, resp. národným politickým systémom. (Moore 2001) Spomínané vylučujúce politiky reflektujú negatívne vnímanie imigrantov zo strany prijímajúcej spoločnosti, a to najmä ich nezačleňovaním do oblastí aktívnej politiky v krajine, čím tiež negatívne vplývajú na ich integračné procesy (Alexander 2007).

Druhú dimenziu predstavuje **sociálno-ekonomický** rozmer poukazujúci na sociálne a ekonomické postavenie a práva imigrantov bez ohľadu na štátne občianstvo. Zahŕňa priemyselné práva a práva súvisiace s inštitucionalizovanými zariadeniami v sociálno-ekonomickej oblasti. Rieši otázky práv imigrantov vo vzťahu k prijímaniu práce a využívaniu inštitúcií na jej nájdenie, ale i prístup k dávkam nezamestnanosti, sociálnemu zabezpečeniu, sociálnemu bývaniu, sociálnej pomoci a sociálnej starostlivosti. (Penninx et al. 2004) V rámci tejto dimenzie je možné pozíciu imigrantov analyzovať prostredníctvom skúmania ich prístupu a účasti vo vzťahu k jednotlivým oblastiam (Penninx, Garcés-Mescareñas 2016).

Kultúrno-náboženská dimenzia sa vzťahuje na oblasť kultúrnych a náboženských práv imigrantov. Ak sú imigranti prijímajúcou spoločnosťou vnímaní ako odlišní na základe ich kultúry či náboženstva, môže byť ich úsilie o získanie uznávaného miesta v spoločnosti značne obmedzené, nakoľko nie každý musí prijímať kultúrnu či náboženskú rozmanitosť (Penninx 2007). Na tejto úrovni môže dôjsť k dvom situáciám. Na jednej strane môže byť táto rôznorodosť odmietnutá a imigranti sú nútení sa prispôsobiť a asimilovať do monokultúrnych a mononáboženských spoločností. Na strane druhej etnická identita, odlišná kultúra či náboženstvo môžu byť akceptované v pluralitných systémoch. (Penninx, Garcés-Mescareñas 2016) Špecifické postavenie imigrantov v tejto dimenzii je náročné merať z dôvodu, že ide skôr o vnímanie a normatívne hodnotenie toho, čo je definované ako odlišné než o objektívne rozdiely a rôznorodosť. To môže viesť k vzniku stereotypov a predsudkov. Druhým dôvodom je recipročné vnímanie prejavované odlišne na rôznych úrovniach, čiže na individuálnej, kolektívnej a inštitucionálnej úrovni. Ak sú kontakty medzi imigrantmi a prijímajúcou spoločnosťou ovplyvnené predsudkami, môžu byť tieto interakcie nepríjemné a môžu mať obmedzený vplyv. (Fennem, Tillie 2004)

V kontexte uvedeného je potrebné uvedomiť si vzájomnú závislosť týchto dimenzií, nakoľko právno-politický rozmer môže podnietiť sociálno-ekonomický či kultúrno-náboženský. Napríklad také faktory ako nelegálny pobyt, zvýšená úroveň neistoty vo vzťahu k udeleniu azylu či nedostatočný prístup k lokálnym alebo národným politickým systémom majú negatívny vplyv na účasť imigrantov v sociálno-ekonomických a politických sférach.

1.2 Úrovne integrácie

Integrácia imigrantov nepredstavuje jednosmerný proces, preto sa začleňovanie týchto jednotlivcov realizuje nie len na úrovni toho ktorého imigranta, ale aj na iných úrovniach. Na základe nich je možné merať integračné procesy imigrantov. Tieto úrovne integrácie člení Penninx (2007) na individuálnu, kolektívnu a inštitucionálnu.

Prvou úrovňou je teda **individuálna**, ktorá umožňuje meranie integrácie prostredníctvom bývania, zamestnania a vzdelania imigrantov a na základe jeho sociálnej a kultúrnej adaptácie vo vzťahu k prijímajúcej spoločnosti.

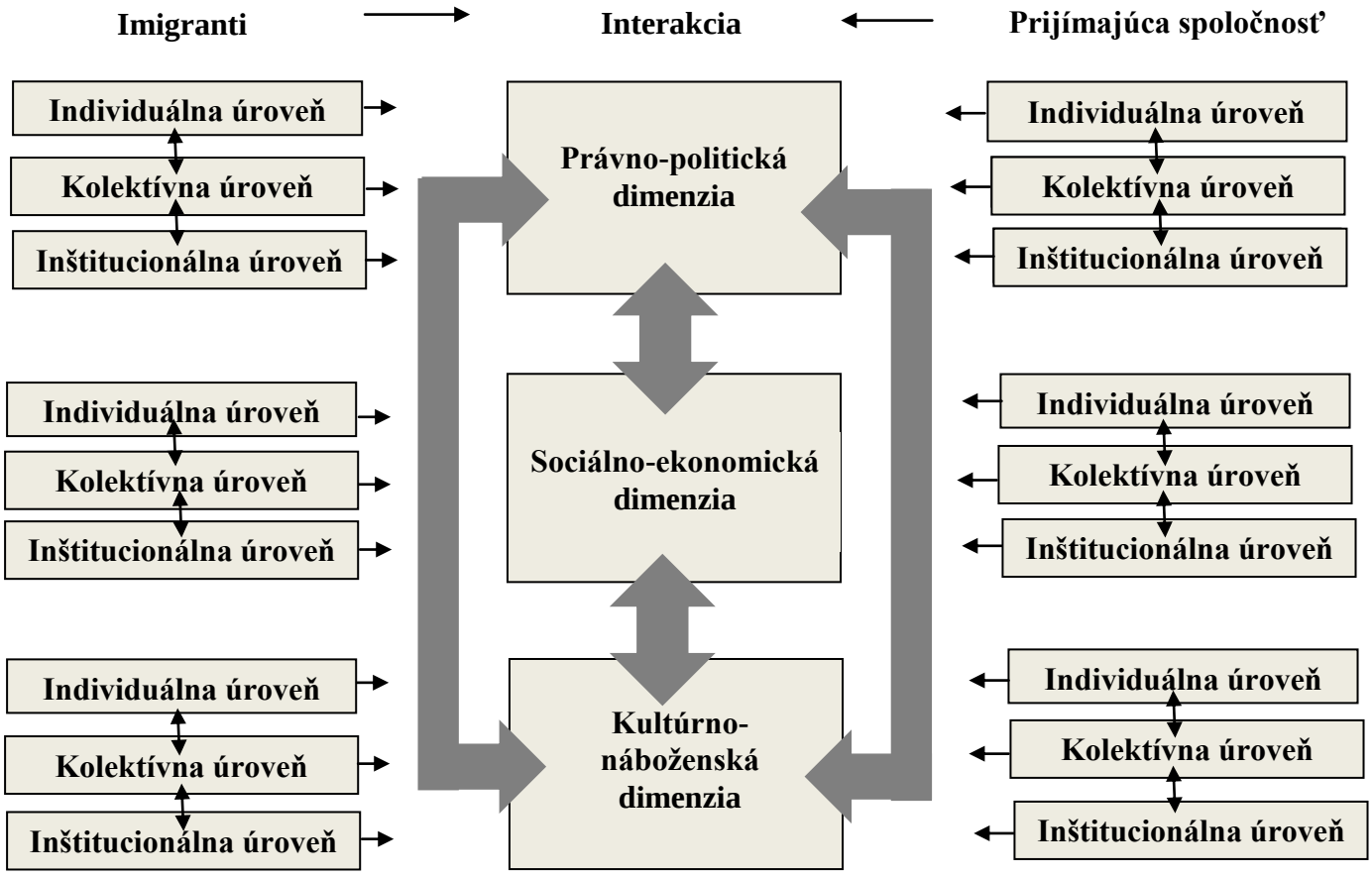
Kolektívna úroveň integrácie poukazuje na organizovanie sa imigrantov, ktoré je vnímané ako výraz mobilizačných zdrojov, pričom sa môžu stať prijatou súčasťou spoločnosti, čím predstavujú potenciálneho partnera pre tvorbu integračných politík, alebo sa môžu izolovať a stať sa vylúčenými.

Pri vnímaní poslednej **inštitucionálnej** úrovne je využívaný sociologický koncept inštitúcie, teda štruktúrovaný, štandardizovaný spôsob konania v sociálno-kultúrnom prostredí. Vo vzťahu k integrácii imigrantov majú osobitný význam dva druhy inštitúcií. Medzi prvé inštitúcie sú zaradzované verejné lokálne alebo národné inštitúcie prijímajúcej spoločnosti ako napríklad vzdelávací systém, inštitucionálne usporiadania na pracovnom trhu, politický systém a pod., ktoré majú slúžiť všetkým občanom. Tieto všeobecné inštitúcie môžu brániť imigrantom v prístupe k nim, a to dvoma spôsobmi. Na jednej strane ich môžu úplne alebo čiastočne formálne vylúčiť a na strane druhej im môžu brániť historicky či kultúrne

určenými spôsobmi prevádzky, ktoré nezohľadňujú osobitné charakteristiky imigrantov, ich kultúrne a náboženské zázemie atď. Penninx a Garcés-Mescareñas (2016) vidia dôležitosť práve vo fungovaní týchto inštitúcií, pretože integrácia i vylúčenie imigrantov reflektuje nastavenie koncepcií integračných politík. Medzi druhý druh inštitúcií s osobitným významom pre integráciu patria špecifické inštitúcie a skupiny imigrantov, napríklad v náboženských či kultúrnych oblastiach. Platnosť týchto inštitúcií je v rozpore so všeobecnými inštitúciami, nakoľko je obmedzená len na tých imigrantov, ktorí sa dobrovoľne rozhodli do nich vstúpiť. Tieto špecifické skupiny a inštitúcie imigrantov sa jednak môžu stať akceptovanou súčasťou spoločnosti rovnako ako inštitúcie prijímajúcej spoločnosti alebo sa môžu izolovať, čím sa stávajú sociálne vylúčenými.

Heuristický model integrácie imigrantov je zobrazený na Obr. 1. Možno konštatovať, že mechanizmy operujúce na individuálnej, kolektívnej a inštitucionálnej úrovni sú odlišné, avšak ich výsledky sú vzájomne prepojené. Do veľkej miery vytvárajú príležitosti a priestor pre činnosť rôznych organizácií, ktoré sa významne podieľajú na ovplyvňovaní vývinu a orientácie imigrantov v prijímajúcej spoločnosti. (Fennem, Tillie 2004) Inštitúcie a organizácie spolu vytvárajú štruktúru rôznych príležitostí, ale aj obmedzení pre jednotlivcov. Na druhej strane sa však imigranti môžu zmobilizovať a potenciálne prispieť k dôležitým zmenám vo vzťahu k inštitucionálnemu usporiadaniu. (Penninx 2000)

Obr. 1 – Heuristický model integrácie imigrantov



Zdroj: Penninx 2000.

2 INTEGRÁCIA IMIGRANTOV NA SLOVENSKU

Prvým dokumentom koncepčne sa zaoberajúcim integráciou imigrantov je Koncepcia integrácie cudzincov v Slovenskej republike (2009), ktorá zahŕňa praktické, organizačné, koncepčné a legislatívne opatrenia vo vzťahu k efektívnej integrácii imigrantov. Podľa zákona o azyle (Zákon č. 480/2002 Z. z.) je integrácia imigrantov vnímaná ako začlenenie sa do spoločnosti, a to najmä prostredníctvom vhodného zamestnania a ubytovania. V súvislosti s heuristickou definíciou integrácie by cieľovou skupinou integračných opatrení mala byť aj prijímajúca spoločnosť. Tento fakt je zdôrazňovaný aj Kovátsom et al. (2006), avšak v spomínanej Koncepcii integračnej politiky zatiaľ absentujú opatrenia smerujúce k hostiteľskej spoločnosti (Štefančík, Lenč 2012).

Ak uvažujeme o právno-politickej dimenzii integrácie, ktorá je orientovaná na zisťovanie, či imigranti sú plnohodnotnými členmi politického spoločenstva prijímajúcej krajiny, možno konštatovať, že im vznikajú rovnaké práva i povinnosti ako občanom Slovenskej republiky okrem brannej povinnosti a práva voliť. V rámci sociálno-ekonomickej dimenzie sú imigranti mnoho krát z prístupov k vzdelaniu, zamestnaniu, bývaniu či zdravotnému alebo sociálnemu zabezpečeniu vylúčení, a to vplyvom prísnych pravidiel vzťahujúcich sa napríklad k vstupu na trh práce, ktoré vyžaduje okrem povolenia na prácu aj povolenie na pobyt (Bargerová et al. 2012). Tieto pravidlá sa odlišujú pri rôznych kategóriách imigrantov (Maslen, Brnula 2004). Uvedené oblasti integrácie sú prepojené a vzájomne sa ovplyvňujú. Podľa heuristického modelu by faktory právno-politickej a sociálno-ekonomickej dimenzie mali byť orientované na začleňovanie imigrantov do spoločnosti. V tomto kontexte je potrebné zodpovedať si na otázku, nakoľko je možné aktívne začleniť imigrantov do politického spoločenstva, s ktorým súvisí aj prístup k spomínaným oblastiam v prípadoch, keď imigranti nedisponujú právnou či politickou orientáciou v krajine, prípadne neovládajú jazyk, aby im bola sprostredkovaná a pod.

Kultúrno-náboženská dimenzia predstavuje proces obojsmernej kultúrnej orientácie. Aby bol tento proces úspešný je potrebné zmapovanie postojov hostiteľskej spoločnosti voči imigrantom, s cieľom navrhnutia ďalších opatrení (Penninx 2007). Tvorcovia integračnej politiky na Slovensku by si v oblasti kultúrnej integrácie mali uvedomiť, že kultúra zohráva v živote imigrantov kľúčovú rolu, nakoľko predstavuje zdroj ich identity, ktorý sa u imigrantov prejavuje v situáciách ohrozenia ako schopnosť orientovať sa v novom prostredí (Casttles, Miller 1998). Kultúrno-náboženská dimenzia zahŕňa nevyhnutne aj realizovanie kultúrne citlivých riešení rôznych problémov, s ktorými sa imigranti bežne stretávajú, ale zároveň predpokladá vzájomný proces učenia sa nie len zo strany imigrantov, ale i zo strany prijímajúcej spoločnosti vo vzťahu k odlišnosti kultúr (Tužinská 2010).

Meranie integrácie podľa heuristického modelu je možné prostredníctvom troch úrovní. Individuálna úroveň umožňuje posudzovať efektivitu integrácie prostredníctvom indikátorov v oblasti zamestnania, bývania, vzdelávania, sociálneho i zdravotného zabezpečenia. Ide o celý rad faktorov podieľajúcich sa na meraní integrácie, pričom medzi najhlavnejšie možno považovať právo na prácu, mieru participácie ekonomických imigrantov, ich diferenciácia na základe mzdy, dostupnosť vzdelania, výskyt negramotných i vysokoškolsky vzdelaných imigrantov, prístup k zdravotnému poisteniu a starostlivosti, prístup imigrantov k bývaniu a diskrimináciu vo vzťahu k jeho zabezpečovaniu (Bargerová, Divinský 2008). Integrácia na kolektívnej úrovni predstavuje organizovanie sa imigrantov. Na Slovensku existuje množstvo komunít i združení imigrantov, avšak je potrebné, aby tieto boli vnímané ako potenciálny partner pre tvorbu integračnej politiky, ktorej opatrenia budú vychádzať z ich reálnych potrieb. S touto skutočnosťou súvisí inštitucionálna úroveň integrácie, v rámci ktorej by sociálne služby poskytované na Slovensku jednotlivými

inštitúciami mali reflektovať spomínané potreby imigrantov, v opačnom prípade môžu negatívne vplývať na ich integráciu do spoločnosti.

ZÁVER

Predstavený príspevok prezentuje analýzu heuristického modelu integrácie imigrantov a usiluje sa o jeho aplikáciu v podmienkach Slovenskej republiky. Pozostáva z dvoch častí. V prvej sa venuje integrácii z hľadiska heuristickej definície a zároveň charakterizuje aktérov integračných procesov, jednotlivé dimenzie a úrovne merania integrácie. Druhá časť venuje pozornosť aplikácii modelu vo vzťahu k integrácii v slovenských podmienkach, zároveň však uvažuje nad skutočnosťou do akej miery je možné jednotlivé dimenzie vo vzťahu k prijímajúcej spoločnosti a k imigrantom aplikovať. Akákoľvek integračná politika by mala byť založená na dôkladnom vedeckom poznaní procesov integrácie a pri ich riadení by integračné politiky mali disponovať jasnou predstavou o správnych nástrojoch vo vzťahu k realizácii intervencie v jednotlivých častiach procesu.

Použitá literatura

ALEXANDER, M. *Cities and Labour Immigration. Comparing Policy Responses in Amsterdam, Paris, Rome and Tel Aviv*. Burlington: Ashgate, 2007. ISBN 0754647226.

BARGEROVÁ, Z. a B. DIVINSKÝ. *Integrácia migrantov v slovenskej republike. Výzvy a odporúčania od tvorcov politík*. Bratislava: Medzinárodná organizácia pre migráciu, 2008. ISBN 978-80-970012-4-7.

BARGEROVÁ, Z. et al. *Integrácia migrantov na lokálnej úrovni 2* [online]. Bratislava: Centrum pre výskum etnicity a kultúry, 2012. [cit. 2017-21-11]. Dostupné na internete: http://cvek.sk/wpcontent/uploads/2010/02/integracia_migrantov_2.pdf

CASTLES, S. and M. J. MILLER. *The Age of Migration: International Population Movements in the Modern World*. New York: Palgrave, 1998. ISBN 978-15-723-0904-3.

ENTZINGER, H. The dynamics of integration policies: A multidimensional model. In: R. Koopmans and P. Statham, Eds. *Challenging immigration and ethnic relations politics: Comparative European perspectives*. Oxford: Oxford University Press, 2000. pp. 97–118. ISBN 978-3-319-16256-0.

FENNEMA, M. and J. TILLIE. Civic Communities in a multicultural democracy. In: *Connections*, 2001. 24(1). pp. 26–41. ISSN 1642-5979.

FENNEMA, M. and J, TILLIE. Do immigrant policies matter? Ethnic civic communities and immigrant policies in Amsterdam, Liège and Zurich. In: R. Penninx, K. Kraal, M. Martiniello and S. Vertovec (eds). *Citizenship in European Cities: Immigrants, Local Politics and Integration Policies*. Aldershot: Ashgate, 2004. pp. 85–106. ISBN 978-07-546-4205-3.

HARRISON, W., D. *Seeking Common Ground: a Theory of Social Work in Social Care***.** Aldershot: Averbury, 1991. ISBN 0–333–77154–0.

Koncepcia integrácie cudzincov v Slovenskej republike schválená uznesením vlády SR č. 338 zo 6. mája 2009. [online]. [cit. 2017-27-04]. Dostupné na internete: https://www.tsk.sk/buxus/docs/dokumenty/dokumenty_socialna_pomoc/narodne_programy/Koncepcia_integracie_cudzincov_v_SR_2009.pdf

MAŇÁK, J. a V. ŠVEC. *Výukové metody*. Brno: Paido, 2003. ISBN 8073150395.

MASLEN, J. a P. BRNULA. *Sociálna práca s utečencami*. Bratislava: OZ Sociálna práca, 2004. ISBN 80-891885-06-1.

MOORE, D. *Ethnicité et Politique de la Ville en France et en Grande-Bretagne*. Paris: L'Harmattan, 2001. ISBNB 2-7475-1676-8.

PENNINX, R. Immigrants and the dynamics of social exclusion – lessons for anti-discrimination policies. In: F. Lindo and M. van Niekerk. *Dedication and Detachment. Essays*

in Honour of Hans Vermeulen. Amsterdam: Het Spinhuis, 2001. pp. 193–211. ISBN 9055891762.

PENNINX, R. et al. *Citizenship in European Cities: Immigrants, Local Politics and Integration Policies*. Aldershot: Ashgate, 2004. ISBN 978-90-5629-726-8.

PENNINX, R. Integration Processes of Migrants: Research Findings and Policy Challenges. In: *Istraživanje migracija*, 2007. 32(4). pp. 7-32. ISSN 31474.

PENNINX, R. and B. GARCÉS-MASCAREÑAS. *Integration processes and Policies in Europe*. London: SpringerLink, 2016. ISBN 978-3-319-21673-7.

TUŽINSKÁ, H. *Otázky opisu a prekladu: využitie poznatkov antropológie a etnografi e vo vedení a tlmočení interview s imigrantmi.* Bratislava: Stimul, 2010. ISBN 978-80-89236-91-6.

Zákon č. 480/2002 Z. z. o azyle a o zmene a doplnení niektorých zákonov v znení neskorších predpisov.

Kontaktné údaje

Mgr. Jana Plavnická
Univerzita Pavla Jozefa Šafárika v Košiciach, Filozofická fakulta, Katedra sociálnej práce
Moyzesova 9, 040 59 Košice
email: j.plavnicka@gmail.com

doc. Mgr. JUDr. Dušan Šlosár, PhD.
Univerzita Pavla Jozefa Šafárika v Košiciach, Filozofická fakulta, Katedra sociálnej práce
Moyzesova 9, 040 59 Košice
email: dusan.slosar@upjs.sk

PÔSOBENIE STRESU NA ZDRAVIE JEDNOTLIVCA V KONTEXTE ONKOLOGICKEJ CHOROBY

EFFECTS OF STRESS ON INDIVIDUAL'S HEALTH IN CONTEXT OF ONCOLOGICAL DISEASE

Lenka Lukáčová, Eva Žiaková

Abstrakt

Predkladaný príspevok sa zameriava na definovanie pôsobenia stresu a záťažových situácií na zdravie jednotlivca v kontexte onkologickej choroby, ktorá predstavuje veľký zásah do života človeka, ovplyvňuje jeho fyzický, psychický stav a predstavuje aj sociálne dôsledky. Samotná choroba, ale aj náročná a zdĺhavá liečba ovplyvňuje a mení celý doterajší život onkologicky chorého pacienta a pacientky ako aj jeho sociálne vzťahy. Príspevok ďalej obsahuje stručný prehľad stratégií zvládania stresu, záťaže a definovanie pojmu reziliencia (odolnosť) voči rizikovým faktorom (stresorom), ktoré sú prediktorom pre stresovú situáciu.

Kľúčové slová: *onkologicky chorý pacient a pacientka, rakovina, reziliencia, stres*

Abstract

The submitted paper aims to define the effects of stress and stressful situations on the individual's health in the context of oncological disease, which represents a major interference with the life of a person, as it affects one's physical and mental state, and it also has social consequences. The disease itself, as well as its difficult and lengthy treatment, influences and changes the whole life of an oncologic patient as well as his or her social relationships. This paper also provides a brief overview of strategies for managing stress and mental load, and it defines the term resilience (resistance) against risk factors (stressor), which are a predictor of stress.

Key words: *oncologic patients, cancer, resilience, stress*

ÚVOD

Každodenný život na človeka kladie rôzne požiadavky, ktoré sa snaží zvládnuť najlepšie ako vie. Denne rieši situácie, ktoré prichádzajú a snaží sa využívať príležitosti, ktoré sa mu naskytujú. Mnoho z týchto situácií v ňom vyvoláva stres a určitú záťaž. Stres ako jeden z mnohých negatívnych faktorov má vplyv na samotný priebeh a liečbu onkologickej choroby, nakoľko je zaraďovaný medzi faktory, ktoré oslabujú imunitný systém jednotlivca, pacienta. Reziliencia, odolnosť alebo pružnosť napomáhajú človeku neupadať do zúfalstva a vyrovnávať sa so záťažovými situáciami. Rezilienciu je možné vnímať ako možnosť prevencie pred nežiadúcimi dôsledkami stresu a záťaže, ktoré vplývajú na zdravie jednotlivca, rovnako ako možnosť zvládania záťažových situácií. Samotnú rezilienciu je možné prirovnať k pružnosti gumovej lopty, ktorá ak je hodená o zem, vyletí späť hore a neostane prilepená o podlahu.

Uvedomujúc si význam používania rodovo citlivého jazyka pre prehľadnosť čítania ďalšieho textu budú autorky používať pojem pacient/pacienti, pričom obsahovo majú na mysli pacientov/pacientky.

1 VPLYV STRESU NA ZDRAVIE JEDNOTLIVCA

Akákoľvek choroba je vo všeobecnosti spôsobená súborom viacerých faktorov, medzi ktoré je možné zaradiť aj stres. Podľa autoriek príspevku je potrebné poukázať na to, že každý človek je špecifický a vnímaný ako bio-psycho-sociálna bytosť. Mieru reziliencie voči stresovým situáciám má každý jedinec inú, preto nie každý, kto je vystavený pôsobeniu toho, či onoho stresoru, ochorie. Podľa Křivhohláveho (2001) môže stres pôsobiť negatívne na zdravotný stav priamo alebo nepriamo. Priamym účinkom stresu na vznik choroby sa obvykle rozumie vplyv na imunitný, endokrinný alebo nervový systém. Nepriamym vplyvom stresu na zdravotný stav sa rozumie vplyv stresu na správanie človeka – napr. na zmenu životného štýlu. Autori Angenendt, Schütza-Kreilkamp a Tschuschke (2010) poukazujú na fakt, že imunitný systém nie je autonómny, ale riadený signálmi z centrálnej nervovej sústavy. Zmeny imunitných funkcií môžu byť spôsobené klasickým podmieňovaním, stresovými podnetmi a psychosociálnymi funkciami. Stresové mechanizmy sú považované za hlavný faktor vo vzťahu medzi správaním, prežívaním a funkciami imunitného systému. Intenzita a trvanie stresovej reakcie určujú podľa Vínaya (2007) mieru funkčnosti imunitného systému, ktorý chráni telo pred baktériami, vírusmi, toxínmi a parazitmi. Pri záťažových situáciách človek mnohokrát volí spôsob ich zvládania neefektívnym spôsobom ako napr. – fajčenie, nezdravá strava, vyššia miera požívania alkoholu, čím sa vystavuje rizikovým faktorom onkologickej choroby (Huber, Bankhofer, Hewson 2009).

Podľa tzv. teórie imunitnej dozornej aktivity ako uvádza Křivohlavý (2001) je nádorová choroba považovaná za určitý druh poruchy činnosti imunitného systému. Ide o abnormálnu mutačnú aktivitu buniek, ktorú nie je schopný imunitný systém zlikvidovať. „Rakovina je súhrnné označenie zhubných ochorení, ktoré si nekontrolovateľným bunečným rastom získavajú v organizme ďalšie a ďalšie miesto, čím životne ohrozujú rôzne telesné orgány a životné funkcie. Toto ochorenie je výsledkom vysoko komplexného vzájomného pôsobenia najrôznejších faktorov“ (Angenent, Schutze-Kreilkamop, Tschuschke 2010, s. 40). Onkologická choroba je podľa Raudenskej a Javůrkovej (2001) vnímaná ako pôsobenie psychosomatických záťažových situácií alebo psychosociálnych faktorov. „Jestvuje množstvo špekulácií a domnienok o tom, či onkologickú chorobu vyvoláva psychická alebo sociálna záťaž. Rozšírený je predpoklad, že túto chorobu podnecuje psychický stav rovnako ako neznáme telesné prejavy“ (Tóthová, Žiaková 2017).

1.1 Stručná charakteristika stresu a jeho priebeh

Pojem stres má z etymologického hľadiska pôvod v anglickom jazyku, kde sa najčastejšie označuje ako hardship (ťažkosti, strasti), straits (úzkosť, obtiažna situácia) alebo adversity (nešťastie, nepriazeň osudu) (Kebza 2005). Z hľadiska terminológie má označenie stres počiatky v oblasti techniky a priemyslu, prostredníctvom ktorého sa označoval vzťah k fyzikálnej sile pôsobiacej na materiál. Išlo napr. o žeravé železo pod kladivom alebo lis pôsobiaci tlakom na určitý predmet (Lüdecke 2007). Venglářová (2011) poukazuje na rok 1956, kedy Selye pretransformoval pojem stres do oblasti biológie, v ktorej ho definoval ako nešpecifické zmeny biologického systému vyvolané rozličnými škodlivými vplyvmi (fyzická námaha, chlad, teplo, intoxikácia, nedostatok potravy). Vyvolanie stresu pripisuje okolnostiam, ktoré sám jedinec vyhodnotí ako ohrozujúce, narúšajúce jeho stabilitu, sebakontrolu, adaptáciu i samotnú sebarealizáciu. Výrost a Slaměník (2001, s. 291) definujú stres ako „vnútorný stav človeka, ktorý je buď priamo niečím ohrozený, alebo také ohrozenie očakáva a pritom sa domnieva, že jeho obrana proti nepriaznivým vplyvom nie je dostatočne silná“. Autorky príspevku toto tvrdenie metaforicky prirovnávajú k miskám váh, kde na jednej strane prevažuje záťaž nad druhou stranou, ktorá predstavuje schopnosť organizmu s ňou bojovať.

Podľa Atkinsonovej (1995) sa stres vyskytuje u jedincov, ktorí sa dostávajú do kontaktu s udalosťami, ktoré považujú za ohrozenie svojho telesného alebo duševného blaha. Tieto udalosti možno označiť ako stresory. Negatívny stres, ktorý môže podľa autoriek príspevku predstavovať jednu z mnoha príčin vzniku onkologickej choroby je možné podľa Venglářovej (2011) terminologicky vymedziť ako distres. Starc (2007, in: Rauber, Bilban, Starc 2015) definuje distres ako výsledok dlhotrvajúcich, intenzívnych a opakujúcich sa stresových reakcií organizmu na stresor (podnet, ktorý danú stresovú reakciu vyvolal). Vedie k preťažovaniu jedinca a v určitých situáciách prevyšuje jeho možnosti. Distres varuje a upozorňuje človeka na možné existujúce nebezpečenstvo (Plamínek 2013). Černý (2006) vyjadruje stres prostredníctvom nasledovnej rovnice:

STRES = STRESOR + STRESOVÁ REAKCIA

Z kontextu uvedeného vyplýva, že stres prebieha v niekoľkých fázach. Autorky uvádzajú členenie fáz stresu podľa Selyho (1976, in: Křivohlavý 2001, s. 167-168), ktoré pozostáva z nasledovných troch fáz:

1. poplachová fáza – ak organizmus rozozná podnet z okolia ako stresový, dochádza k vyvolaniu nepokoja až šoku. Následne dochádza k mobilizácii síl, ktoré sú potrebné pre zvládnutie záťaže. V tejto fáze je organizmus človeka pripravený buď na boj, alebo útek,
2. všeobecný adaptačný syndróm – hlavným cieľom tejto fázy je upokojenie organizmu. K adaptačnej reakcii môže dôjsť aj v prípade, ak prekážku alebo problém nebolo možné odstrániť. Cieľom organizmu je vytvoriť si ochranu pre prekonanie, či prečkanie situácie, ktorú vyhodnotil v prvej fáze ako stresovú,
3. fáza vyčerpania – v tejto fáze stresor naďalej pretrváva a organizmus nie je schopný účinne reagovať. Zjednodušene možno povedať, že organizmus so stresom na jednej strane bojuje, ale na druhej strane sa rúca. Pre túto fázu je možný výskyt zlosti, zúfalstva, apatie až depresie.

V kontexte uvedených fáz stresu, autorky uvádzajú tri fázy vyrovnávania sa so stresovou situáciou (Výrost, Slaměník 2001, s. 291):

1. fáza prvotného hodnotenia – objektívne vyhodnotenie pôsobiacej situácie, nakoľko je ohrozujúca, alebo naopak, aké predstavuje pozitíva. Rovnaká situácia môže pre jedného človeka predstavovať stres, pre iného nie (napr. absolvovanie vyšetrenia),
2. fáza sekundárneho hodnotenia – predstavuje uvažovanie a hľadanie možných riešení pre určitú záťažovú situáciu. Jedinec odhaduje vlastné možnosti a prehodnocuje svoje reakcie voči stresoru. Výsledkom prvých dvoch fáz je výber konkrétnej copingovej stratégie,
3. fáza prehodnotenia – táto fáza zvyčajne nastupuje neskôr. Po skúsenosti s konkrétnym stresorom človek nadobúda nové poznatky a informácie, ktoré môžu zmeniť v budúcnosti jeho prístup k podobným situáciám.

1.2 Členenie stresorov a reakcie na stresovú situáciu

K negatívnym životným faktorom, ktoré je možné vymedziť zastrešujúcim pojmom stresor aj v kontexte onkologickej choroby patrí pocit ohrozenia, strach, že sa niečo stane alebo pocit straty kontroly nad sebou. Následná stresová reakcia predstavuje reakciu, v ktorej dochádza ku zníženiu schopnosti kontroly. Môže sa prejaviť v rovine pozorovateľného správania, emócií, fyziológie či myšlienok (Křivohlavý 2001). Najčastejšie stresory vyskytujúce sa v živote človeka možno podľa Venglářovej (2011, s. 52) vymedziť v piatich kategóriách:

- fyzikálne stresory – prudké svetlo alebo nedostatok svetla, nadmerný hluk, nedostatok tepla, vody, málo priestoru, vlhkosť prostredia a pod.,

- fyziologické stresory – nesprávna životospráva, nedostatok pohybu, nevhodné stravovacie návyky, nedostatok spánku, zhon a i.,
- psychické stresory – nároky, ktoré súvisia s obsahom práce (napr. pracovné zaťaženie), absencia pozitívneho myslenia, nenaplnené očakávania,
- sociálne stresory – narušené medziľudské vzťahy, konflikty, organizácia práce (vysoké množstvo pracovných úloh, nedostatok času), profesijná perspektíva (nemožnosť dosiahnutia kariérneho rastu),
- raumatické stresory – úmrtie, rozvod, choroba, strata zamestnania, strata životnej role.

Autorky považujú za dôležité zamerať sa i na subjektívne stresory, ktoré súvisia priamo s osobou onkologického pacienta. Môžu nimi byť problémy s koncentráciou, pociťovanie stavu beznádeje, pocity strachu a úzkosti, obavy z budúcnosti, strach z rozhodovania, ľútostivosť, pripúšťanie si starostí, neschopnosť uvoľniť sa a pod. (Míček 1984, in: Gáborová, Ľ., Gáborová Z. 2007).

Pri strete organizmu so stresom je potrebné vnímať varovné signály. Medzi najčastejšie patria bolesti hlavy, tráviace problémy, pocit studených rúk a nôh, bolesti chrbta a šije, nevoľnosť, porucha srdcového rytmu, nárast alebo úbytok hmotnosti, problémy s koncentráciou, pocity úzkosti (Hubber, Bankhofer, Hewson 2006). Autorky príspevku sa prikláňajú k členeniu štyroch rovín reakcie stresu podľa Heninga a Kellera (1996, s. 18), ktoré považujú v rámci pomáhajúcej profesie v kontexte syndrómu vyhorenia za dôležité. Ide o nasledovné roviny psychologickej reakcie na stres:

- duševná rovina – negatívny postoj k iným ľuďom, negatívny obraz o vlastných schopnostiach, únik do fantázie, strata záujmu o profesionálne témy, poruchy koncentrácie,
- citová rovina – pocit bezmocnosti, nervozita, skľúčenosť, sebaľútosť, pocit nedostatku uznania,
- somatická rovina – zvýšená náchylnosť k chorobám, rýchla unaviteľnosť, bolesti hlavy, vysoký krvný tlak, poruchy spánku, zažívacie problémy, svalové napätie,
- sociálna rovina – úbytok snahy pomáhať druhým, úbytok angažovanosti v práci, obmedzovanie kontaktov s kolegami, nedostatočná príprava na zamestnanie, konflikty v súkromí.

Medzi ďalšie reakcie na stres v psychologickom ponímaní je možné zaradiť výpadky pamäte, narušenie schopnosti logického myslenia, neschopnosť riešiť problémy, znížená schopnosť rozhodovania sa. Závažným sa môže stať nástup depresie, ktorá je výsledkom pretrvávajúcej fázy vyčerpania (Gáborová Ľ., Gáborová, Z. 2007).

2 STRATÉGIE ZVLÁDANIA STRESU A ZÁŤAŽE

Psychosociálna záťaž podľa Bačovej a Žiakovej (2015) v neposlednom rade ovplyvňuje vznik onkologickej choroby. Za psychosociálnu záťaž v detstve možno považovať alkoholizmus rodičov, stratu rodičov a opakované sťahovanie. V dospelosti je psychosociálnou záťažou strata zamestnania, chronický stres v zamestnaní, kríza a nestabilita v manželstve, absencia plánov do budúcna a strata významných blízkych ľudí. Křivohlavý (2001, s. 86) uvádza dva druhy stratégie zvládania stresu:

- stratégia zameraná na riešenie problému – ide o vyvinutie vlastnej aktivity a snahu konštruktívne riešiť danú situáciu (napr. snaha odstrániť to, čo spôsobuje obavy a strach; likvidovať stresotvorné situačné vplyvy a zmeniť podmienky, ktoré zhoršujú celkový stav),
- stratégia zameraná na vyrovnávanie sa s emocionálnym stavom – je zameraná na riadenie (reguláciu) emocionálneho stavu, ktorý sa radikálne zmenil v dôsledku stresu, do ktorého sa daná osoba dostala (ide napr. o zníženie miery obáv a strachu, alebo o zníženie miery zlosti).

Podobné stratégie zvládania záťaže uvádzajú aj Hewstone, Stroebe (2006). Medzi zvládanie zamerané na problém zaraďujú správanie smerované ku zníženiu alebo odstráneniu hrozby. Snahu o zmenu vlastného prežívania záťažovej situácie zaraďujú k zvládaniu zameranému na emócie a tretiu stratégiu popisujú ako zvládanie zamerané na únik, ktoré zahŕňa zmenu prostredia, podmienok alebo ľudí nachádzajúcich sa v ich okolí). Tiež je možné rozlišovať adaptívne zvládanie záťaže, ktoré predstavuje úspešné prekonanie situácie a neadaptívne zvládanie záťaže, ktoré sa javí ako neúčinné a jeho výsledkom je neúspech (Zelinová, Zelina 2009, in: Šiňanská, Šadlová 2003).

Pokiaľ je stres trvalý, znamená, že ho človek neustále posilňuje, a to zvyčajne svojou snahou mať situáciu vždy pod kontrolou (Cungi 2001). Na základe prežívania stresu sa v tele jednotlivca dejú určité zmeny. Richards (2006) uvádza, že telo počas stresu automaticky prechádza na zvýšený výkon a môže sa prejaviť zvýšenou pulzovou frekvenciou a stúpaním krvného tlaku, tuhnutím svalstva, spomalením trávenia a zvýšeným vylučovaním žlče alebo zrýchleným dýchaním. Tieto reakcie je možné nazvať útokom alebo útekom, pretože tieto zmeny majú pripraviť telo na boj alebo útek. Truckenbrodt (2006) uvádza, že človek by mal vedieť sám určiť, v akom strese sa momentálne nachádza. Stres sa nedá objektívne zmerať, ale vždy ide výhradne o subjektívnu záležitosť. Taktiež by mal vedieť ohodnotiť svoj stres napr. na stupnici od 0 (pohoda) do 10 (extrémny stres) a vedieť pomenovať stresory, čiže spúšťače zo svojho okolia, ktoré mu spôsobujú stres.

Existuje niekoľko individuálnych a kolaboratívnych faktorov, ktoré v onkológii zmierňujú zdroje napätia, stresu a záťaže. Za jeden z významných činiteľov možno považovať rezilienciu (Zander, Hutto, King 2010, in: Žiaková, Sabolová 2016). Odolnosť voči stresu je typický ľudský zdroj. Mení sa v čase a závisí na rade faktorov, ktoré je možno vedome ovplyvňovať. Ku zvládaniu stresu môžu viesť dve cesty. Prvá smeruje k okoliu jednotlivca a spočíva v ovplyvňovaní záťaže, druhá smeruje do vnútra jednotlivca a spočíva v ovplyvňovaní odolnosti (Plamínek 2013). Odolnosť (resiliencia) je často chápaná ako vlastnosť človeka, ako určitá priaznivá črta osobnosti (Mareš 2012). Iní tvrdia, že dispozičné ponímanie by malo byť označované ako nezdolnosť človeka v zmysle hardiness (Šolcová, Kebza 2003). Hardiness znamená pevnosť, tvrdosť tvárou v tvár ťažkostiam. Toto ponímanie nezdolnosti má tri dimenzie. Tie majú kladné póly označené ako charakteristiku chápania ťažkosti ako výzvy (challenge), ďalej ochotu angažovať sa v boji s chorobou (committment) a videnie možnosti riadiť chod diania (control) (Mareš 2012). Čím viac vidí jednotlivec svoju situáciu ako zmysluplnú, zvládnuteľnú a zrozumiteľnú, tým je väčšia nádej, že sa pacient odhodlá k boju s ťažkosťami (Křivohlavý 2002). Pre zvládanie stresu existujú rôzne techniky. Môže ísť o masáž, reguláciu krvného tlaku dýchaním, relaxačné dýchanie, psychologické techniky, meditácia a iné. Používanie psychologických techník nemusí byť jednoduché a ľahko použiteľné v bežnej praxi. Zvyknú byť zamerané na spracovanie vlastných pocitov, sebaovládanie, predvídateľnosť, uvoľnenie frustrácie (Joshi 2007).

3 ZÁVER

Z uvedeného autorky príspevku v kontexte problematiky pôsobenia stresu na zdravie jednotlivca v súvislosti s onkologickou chorobou pokladajú za dôležitý súlad medzi somatickou, duševnou a sociálnou zložkou zdravia jednotlivca. Narušenie ktorejkoľvek zložky považujú za jeden z mnohých faktorov ovplyvňujúcich vznik a liečbu onkologickej choroby. Dôraz kladú na starostlivosť o duševné zdravie, ktoré napomáha primerane a pohotovo reagovať na podnety (stresory). Túto myšlienku potvrdzuje aj Melgosa (1998), podľa ktorého je človek po duševnej stránke zdravý, ak má dobré vzťahy s inými, pociťuje spokojnosť sám so sebou a je schopný riešiť každodenné problémy.

Použitá literatura

1. ANGENENDT, G., SCHÜTZE-KREILKAMP, U., TSCHUSCHKE, V. *Psychoonkologie v praxi: psychoedukace, poradenství a terapie*. Praha: Portál, 2010. 326 s. ISBN 978-80-7367-781-7.
2. ATKINSON, R., L. et al. *Psychologie*. Praha: Victoria publishing, 1995. 863 s. ISBN 80-8560-535-X.
3. BAČOVÁ, M., ŽIAKOVÁ, E., KATRENIAKOVÁ, Z., 2015. Sociálna opora onkologicky chorých žien - základný predpoklad intervencie sociálnych pracovníkov.. In: *Sociální práce/Sociálna práca*, Roč. 15, č. 1, s. 48–65. ISSN 1335-0579.
4. CUNGI, CH. *Jak zvládat stres*. Praha: Portál, 2010. 205 s. ISBN 80-7178-465-6.
5. GÁBOROVÁ, Ľ., GÁBOROVÁ, Z. *Človek v sociálnom kontexte*. Prešov: Lana, 2007. 173 s. ISBN 80-969053-8-4.
6. HENNING, C., KELLER, G. *Antistresový program pro učitele*. Praha: Portál, 1996. 99 s. ISBN 80-7178-093-6.
7. HEWSTONE, M., STROEBE, W. *Sociální psychologie*. Praha: Portál, 2006. 769 s. ISBN 80-7367-092-5.
8. HUBER, J., BANKHOFER, H., HEWSON, E.*30 způsobů jak se zbavit stresu*. Praha: Grada Publishing, 2006. 117 s. ISBN 978-80-247-2486-7.
9. JOSHI, V. *Stres a zdraví*. Praha: Portál, 2007. 156 s. ISBN 978-80-7367-211-9.
10. KEBZA, V. *Psychosociální determinanty zdraví*. Praha: Academia, 2005. ISBN 80-200-1307-5.
11. KŘIVOHLAVÝ, J. *Psychologie zdraví*. Praha: Portál, 2001. 279 s. ISBN 80-717-8551-2.
12. KŘIVOHLAVÝ, J. *Psychologie nemoci*. Praha: Grada Publishing, 2002. 198 s. ISBN 80-247-0179-0.
13. LÜDECKE, K., K. *Nejlepší techniky proti stresu*. Praha: Grada Publishing, a.s., 2007. 114 s. ISBN 978-80-247-1833-0.
14. MAREŠ, J. *Posttraumatický rozvoj člověka*. Praha: Grada Publishing, a.s., 2012. 198 s. ISBN 978-80-247-3007-3.
15. MELGOSA, J. *Zvládni svoj stres*. Vrútky: Advent – Orion, 1997. 190 s. ISBN 80-7172-240-5.
16. PLAMÍNEK, J. *Sebepoznání, sebeřízení a stres. Praktický atlas sebezvládaní.* Praha: Grada Publishing, a.s., 2003. 192 s. ISBN 978-80-247-4751-4.
17. RAUBER, M., BILBAN, M, STARC, R., 2015. Stres na delovnem mestu in variabilnost srčne frekvence. *Zdrav Vestn*. 84(1), 47-58. ISSN 1581-0224.
18. RAUDENSKÁ, J., JAVŮRKOVÁ, A. *Lékařská psychologie ve zdravotnictví.* Praha: Grada, 2011. 304 s. ISBN 978-80-247-2223-8.
19. RICHARDS, M. *Stres. Kapesní příručka tipů a technik, jak zvládat stres a pozitivně ho využít*. Praha: Portál, 2006. 110 s. ISBN 80-7367-082-8.
20. ŠIŇANSKÁ, K. a V., ŠANDLOVÁ, 2003. Vyrovnávanie sa so stresom a záťažovými situáciami terénnymi sociálnymi pracovníkmi. *GRANT journal*. 2(1), 41–45. ISSN 1805-0638.
21. ŠOLCOVÁ, I. a V., KEBZA, 2013. Prediktorysociální opory u české populace. *Československá psychologie*. XLVII(3), 220–229. ISSN 0009-062X.
22. TÓTHOVÁ, L., ŽIAKOVÁ, E. *Rizikové správanie onkologicky chorých klientov sociálnej práce*. Košice: KSP FF UPJŠ, 2017. 91 s. ISBN 978-80-8152-524-7.
23. TRUCKENBRODT, N. *Stres? Neznám!* Praha: Grada Publishing, a.s., 2006. 96 s. ISBN 80-247-1688-7.

24. VENGLÁŘOVÁ, M. et al. *Sestry v nouzi. Syndrom vyhoření, mobbing, bossing*. Praha: Grada, 2011. 184 s. ISBN978-80-247-3174-2.
25. VÍNAY, J. *Stres a zdraví*. Praha: Portál, 2007. 156 s. ISBN 978-80-7367-211-9.
26. VÝROST, J., SLAMĚNÍK, I. *Aplikovaná sociální psychologie*. Praha: Grada Publishing, 2001. 512 s. ISBN 8024700425.
27. ŽIAKOVÁ, T. a A., SABOLOVÁ FABIANOVÁ, 2016. Socioterapia ako terapeutická koncepcia pomoci pri zvyšovaní reziliencie onkologicky chorých klientov. *Journal socioterapie*. II(1-2), 32–34, ISSN 2453-75-43.

Kontaktné údaje

Mgr. Lenka Lukáčová
Univerzita Pavla Jozefa Šafárika v Košiciach, Filozofická fakulta, Katedra sociálnej práce
Moyzesova 9, 040 59 Košice
email: lenka.lukacova@student.upjs.sk

prof. PhDr. Eva Žiaková, CSc.
Univerzita Pavla Jozefa Šafárika v Košiciach, Filozofická fakulta, Katedra sociálnej práce
Moyzesova 9, 040 59 Košice
email: eva.ziakova@upjs.sk

MOŽNOSTI VYUŽITÍ SLEDOVÁNÍ OČNÍCH POHYBŮ V MANAGEMENTU LIDSKÝCH ZDROJŮ

THE POTENTIAL OF USING EYE TRACKING IN HUMAN RESOURCES MANAGEMENT

Jonáš Erlebach, Ondřej Kasl

Abstrakt

Článek se zabývá využitím sledování očních pohybů pro testování manažerských kompetencí v personalistice, konkrétně pro výběr pracovníků. Testovaná skupina byla nejdříve podrobena psychodiagnostickým testům, jejichž výstupem byla úroveň kompetencí z předdefinovaného kompetenčního modelu. Stejná skupina byla následně podrobena nové metodě testování kompetencí pomocí očních pohybů. Srovnání ukazuje, že navržené parametry očních pohybů jsou využitelné v personalistice. Přidanou hodnotou použité metody je zajištění objektivity ze strany hodnotících a omezení vlivu připravenosti osoby na konkrétní test, neboť oční pohyby jsou do určité míry nezávislé na vůli člověka.

Klíčová slova: *kompetence, management lidských zdrojů, psychodiagnostika, testování očních pohybů*

Abstract

The article presents the use of eye tracking in managerial competencies within human resources management, specifically in employee selection. The participants of the research were first given psychodiagnostic tests, which determined the competency levels of the participants, according to a pre-defined competency model. The competency levels of the same group of participants were then tested again, through a new method of eye tracking. The results of this experiment suggest that it is possible to use eye tracking in human resources management. Moreover, the designed method of eye tracking brings in added value by providing objectivity of the research examiner; as well as reducing the impact of the participant readiness to a specific test, as eye movements are into certain extent independent of human will.

Key words: *competency, human resources management, psychodiagnostics, eye tracking*

1 ÚVOD DO ŘÍZENÍ LIDSKÝCH ZDROJŮ

Důsledkem globalizace světové ekonomiky, měnících se podmínek trhu a potřeb zákazníků se v osmdesátých letech 20. století začalo prosazovat řízení lidských zdrojů, coby nejnovější vývojová etapa personalistiky[1]. Hlavní důraz v tomto pojetí personalistiky je kladen na člověka, který je chápán jako aktivum, největší bohatství organizace, a jako takový musí být dlouhodobě optimálně řízen. (Dvořáková, 2012; Šikýř, 2012) Dle Šikýře (2012) jsou to právě způsobilí a motivovaní lidé, kteří určují výkon organizace, zajišťují její prosperitu a konkurenceschopnost.

Úkolem řízení lidských zdrojů je podle Koubka (2009) zajištění a neustálé zvyšování výkonnosti organizace, čehož lze dosáhnout zvyšováním produktivity a zlepšováním využití

[1] Šikýř (2012) definuje personalistiku jako: „*...oblast řízení organizace, která se zabývá řízením a vedením lidí.*"

všech zdrojů organizace. Jelikož jsou to právě lidé, kteří určují, jakým způsobem bude nakládáno se všemi ostatními zdroji organizace, je z perspektivy výkonnosti organizace mimořádně důležité, postarat se o kvalitní výběr, personální i sociální rozvoj pracovníků a jejich optimální řízení. K tomu je třeba umět uchazeče o pozici, a následně pracovníky, hodnotit.
Podle Armstronga (2017) pojem řízení lidských zdrojů jednoduše označuje náplň práce personalistů a liniových manažerů.

1.1 Kompetence

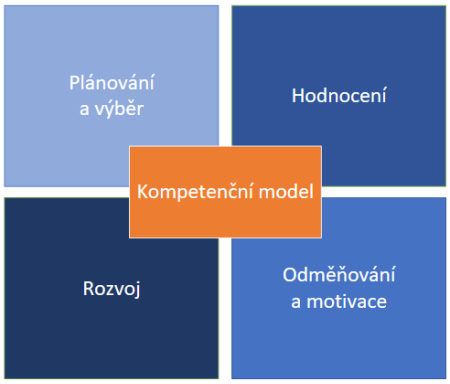
Již bylo uvedeno, že hlavním důvodem, proč věnovat odpovídající pozornost výběru potenciálních pracovníků, je jejich významný podíl na úspěchu organizace. Bez ohledu na to, zda se jedná o dovednosti, schopnosti, hodnoty, vědomosti, či kombinaci těchto a jiných kvalit, kvality vedoucí k dosažení úkonu na požadované úrovni, tedy k úspěchu, lze dle Kubeše (2004) souhrnně označit jako kompetence. Hroník (2007) uvádí, že kompetence při dosahování výkonu reprezentují postup, způsob, který spolu s adekvátní motivací za příznivých podmínek ústí v pracovní výkon jednotlivce. Kompetence tedy tvoří vhodné kritérium pro řízení lidských zdrojů. Tento přístup je označován jako řízení lidských zdrojů podle kompetencí.
Impuls vedoucí k rozšíření výrazu kompetence dal dle Woodruffa (1993) Richard Boyatzis ve své knize *The Competent Manager* (1982), kde jej definuje jako: „*...lidské charakteristiky, které příčinně souvisí s podáváním efektivního a/či výjimečného pracovního výkonu.*“[2]. Hroník (2007) chápe kompetence jako: „*...trs znalostí, dovedností, zkušeností, ale i vlastností, který se projevuje v určitém úseku chování (vzorek chování)“*. Současně dodává, že v konkrétní kompetenci není možné určit podíl jednotlivých kvalit.
Anglosaská literatura rozlišuje termíny *competency* a *competence*. Výraz *competence* vyjadřuje odbornou způsobilost, může také označovat minimální požadavky na kvalifikaci, standard. Odborné způsobilosti (*competence*) nevypovídají nic o tom, zda je člověk při výkonu dané činnosti v průběhu testování podprůměrný, průměrný, či nadprůměrný, ale pouze na základě předem stanovených kritériích určí, zda daná osoba je, či není kompetentní. Bývají též označovány jako tvrdé kompetence, někdy též tvrdé dovednosti (hard skills).
Termín *competency* označuje projev vnitřních kvalit člověka, jimiž je dosahován výkon. Tyto vnitřní kvality bývají souhrnně označovány jako měkké kompetence, někdy též měkké dovednosti (soft skills), které narozdíl od tvrdých kompetencí mohou nabývat různých úrovní kvality projevu. (Hroník, 2008; Rowe, 1995; Armstrong, 2017)
V dalším textu bude slovo kompetence používáno ve významu anglického slova *competency*, tedy měkkých kompetencí, resp. měkkých dovedností.

1.2 Kompetenční modely a jejich využití

Uspořádání kompetencí reprezentující spojení mezi business strategií a personální strategií organizace se nazývá kompetenční model[3]. (Hroník, 2008) Kompetenční model představuje etalony žádoucího chování a současně jádro řízení lidských zdrojů podle kompetencí v podobě jednotného nástroje pro plánování a výběr, hodnocení, rozvoj, odměňování a motivaci pracovníků (viz Obrázek 1). Je prostředkem sjednocujícím pohled na budoucí

[2] Původní text: „*Competencies are characteristics that are causally related to effective and/or superior performance in job.*“ (Woodruff, 1993)
[3] „*Business strategie říká, k jakému bodu či horizontu firma směřuje a jaké základní prostředky bude volit. Personální strategie je naopak rozpracováním této cesty do systému práce s lidmi. Tyto dvě strategie spojujeme mostem, přes který kráčí lidé z pravé strany, aby naplnili business strategii.*“ (Hroník, 2008)

potřeby společnosti, který dle Kubeše (2004): „*...vnáší do chování lidí velmi silný prvek měřitelnosti.*“ Současně, jak uvádí Hroník (2008): „*Kompetenční model není cestou tvorby standardu, ale cestou k řízení diverzity a výkonu.*“



Obrázek 1 Souvislost kompetenčního modelu a personálních činností
(Zdroj: Vlastní zpracování)

2 TESTOVÁNÍ KOMPETENCÍ PŘI VÝBĚRU PRACOVNÍKŮ

Cílem výběrového řízení je vybrat vhodného uchazeče na vhodnou pozici na základě předem stanovených kritérií. Nástrojem k ověření jednotlivých kritérií jsou metody výběru pracovníků, jejichž soubor reprezentuje proces výběrového řízení. Například Hroník (2007) představuje model čtyř pilířů výběrového řízení:

1. Zhodnocení osobních dokumentů
2. Znalostní a psychodiagnostické testy
3. Výběrový pohovor
4. Zhodnocení referencí

Dále uvádí, že je nutné použít kombinaci více metod výběru pracovníků, protože žádná z metod není sama o sobě při určování nejvhodnějšího uchazeče dostatečně spolehlivá. Již bylo zmíněno výše, že jedním z kritérií, vhodných pro výběr pracovníků, jsou kompetence. Metody pro testování kompetencí při výběru pracovníků tedy představují pouze dílčí části souboru vzájemně se doplňujících metod výběru. Tato práce diskutuje perspektivu možnosti využití sledování očních pohybů v oblasti testování kompetencí, kde jsou obvykle využívány standardní psychodiagnostické metody.

Mimořádný význam testování kompetencí při výběru pracovníků lze dle Štikara (2003) dokumentovat na příkladu výjimečně náročných pozic, zejména pozic vedoucích pracovníků, manažerů. Dále se jedná o pozice se specifickými požadavky a pozice, kde může mít selhání zvláště závažné důsledky, zejména ve formě vážné materiální ztráty nebo ohrožení lidských životů. Konkrétními příklady takových pracovníků mohou být příslušníci bezpečnostních sborů a ozbrojených sil nebo pracovníci jiných oblastí kritické infrastruktury. Totéž uvádí Seitl (2015).

2.1 Standardní psychodiagnostické metody

Využití psychodiagnostických metod má v moderní personalistice svoje nezastupitelné místo. Diagnostika je z pohledu řízení lidských zdrojů podle kompetencí přímým nástrojem k posouzení kompetencí potenciálního pracovníka.

Jednou z metod je dle Hroníka (2007) pozorování, které spočívá v hodnocení uchazeče během pracovního pohovoru profesionálními hodnotiteli na základě předem stanovených kritérií v zájmu zajištění maximální objektivity. Hodnotí se verbální i neverbální projevy uchazeče, které mohou o uchazeči vypovědět velmi cenné informace.

Další možností je dle Hroníka (2007) využití psychodiagnostických testů, které snižují riziko chyb a finanční náklady spojené se špatným výběrem. Psychodiagnostické testy jsou

postavené na mnohaletých zkušenostech z výzkumu i praxe a mohou mít podobu testů osobnosti, výkonových testů, osobnostních dotazníků aj. Každý standardizovaný test, který psycholog používá, musí být validní. Před zavedením do praxe je takový test prověřován a zkoumán týmem expertů. Během procesu stanovení posuzovacích norem a kritérií se pracuje s velkým vzorkem zkoumaných osob, čímž je zaručen spolehlivý výsledek.
Psychodiagnostické testy mohou mít podobu tzv. tužka – papír. Vzhledem k tomu, že s těmito testy mohou pracovat prakticky výlučně psychologové, je jejich využití v rámci personalistické praxe omezené. Pro potřeby výběru lidí je nezbytné sestavovat testovou baterii vždy s ohledem na relevantní kompetenční model. Konkrétních testů existuje celá řada (řádově několik tisíc) a to, jaké testy budou použity v daném případě, je plně v rukách psychologa. Testy jsou dle Hroníka (2007) oproti pohovoru méně komplexní a dynamické, ale současně méně náročné na administraci.
Stále častěji se dnes využívají psychodiagnostické testy v online podobě tzv. online psychodiagnostiky. Jedná se o soubor testových úloh a dotazníků, které většinou vychází ze standardizovaných metod. Častým jevem také bývá, že standardizace těchto metod není provedena pro Českou populaci.

2.2 Testování kompetencí metodou eye trackingu

Sledování očních pohybů pomocí oční kamery, neboli eye tracking, je moderní technologie s rostoucí popularitou, která je stále více využívána v různých oblastech zájmu lidských činností. Často je využívána v marketingu pro cílenou reklamu a jako asistivní technologie pro ovládání počítače handicapovanými. V tomto případě se využívá skutečnosti, že člověk je schopen ovládat bod, kam upírá pozornost.
Co však dle Uzzamanové (2011) člověk není schopen vědomě ovládat, jsou oční pohyby, které mohou zprostředkovat vhled do mentálních procesů jednotlivce. Navíc lze při použití automatického vyhodnocení považovat metodu za objektivní. Své uplatnění tudíž metoda nachází i v psychologickém výzkumu (Poole, 2006; Mele, 2012). Například Dobiáš (2017) provedl rozbor inteligenčního testu, jakožto nástroje přístupu k řešení problému, ze kterého plyne, že na potenciál rozhodování můžeme usuzovat z očních pohybů při zátěži.
Popularitu metody zajišťuje i zájem testovaných osob o testování, což přináší lepší spolupráci a interaktivitu během měření.
Pro testování kompetencí jsme se rozhodli využít metodu sledování očních pohybů. Metoda sledování očních pohybů má nespornou výhodu v omezených možnostech vědomě ovlivnit výsledky testování (standardní psychodiagnostické testy je možné v případě častého opakování vědomě ovlivnit, "naučit se odpovědi").
Eye tracking je technologie, jež se též využívá pro zkoumání oblastí, které pozorovaná osoba sleduje. V našem konkrétním případě se jedná o videookulograf, který je ze známých technologií nejméně invazivní. Videookulografy mají dvě typické podoby, podobu náhlavního trackeru (brýle na hlavě sledované osoby) a distančního trackeru (umístěný naproti sledované osobě). Vzhledem k minimálnímu omezení přirozenosti pozorované osoby je pro potřeby výzkumu použit distanční tracker.
Měření se provádí zobrazením stimulu (řešení úlohy), kdy jsou paralelně zaznamenávány oční pohyby. Tento záznam je následně vyhodnocen z pohledu absolutních sledovaných oblastí, dále pak sakadických a fixačních pohybů, případně různých strategii (sledovaných zón a opakování v průběhu řešení úlohy).
Vhodně navržené testovací úlohy mohou z očních pohybů prozradit mnoho psychologicky dobře interpretovatelných výsledků v marketingu (Dobiáš, 2013), objektivizaci vývojových poruch učení (Fabián, 2015), atd.

3 TESTOVÁNÍ KOMPETENCÍ

Na základě výše zmíněných předpokladů byly vytvořeny ve spolupráci s psychology zátěžové a pozornostní testovací úlohy, z nichž získaná data byla podkladem pro popisovanou studii. Testování proběhlo v rámci projektu č. TH01010233 – Využití technologie sledování očních pohybů pro testování kompetencí, proto jsou zde převzata změřená data, definice úloh i model kompetencí.

Pro účely experimentu byla vybrána testovací skupina studentů magisterského studia. Nejedná se přímo o manažery, na které výsledná metoda cílí, nicméně vysokoškolští studenti mají potenciál na tyto pozice také cílit, proto by nová metoda měla být schopna hodnotit i jejich kompetence. Omezujícím předpokladem je, že není obsažena příliš široká skupina respondentů. Skupina byla podrobena psychodiagnostickým testům agentury Motiv P s.r.o. a následně experimentálnímu testování pomocí sledování očních pohybů.

3.1 Popis kompetenčního modelu

Pro potřeby projektu byl nadefinován kompetenční model se sedmi kompetencemi, které vhodně popisují schopnosti důležité pro manažerské pozice, na něž je projekt primárně zaměřen. Kompetenční model je popsán v následující tabulce (Tabulka 1).

Kompetence	**Popis projevů pozorovatelného chování**
Flexibilita	Adaptuje se rychle v novém prostředí. Je schopen přijímat změny. Adekvátně dané situaci přizpůsobuje strategie svého chování. Vytěžuje poznatky z úspěchů a omylů.
Rozhodování	Rozhoduje se rychle a jednoznačně. Zvažuje návrhy na řešení z více zorných úhlů. Dle vybraného návrhu stanovuje priority. Zvažuje kontext celé situace.
Odolnost vůči zátěži	Vypořádává se bez problémů se stresem. Pod vnějším tlakem zachová klid a jistotu. Podává stabilně kvalitní výkon. Má tendenci se zlepšovat.
Pracovní tempo	Pracovní tempo je přiměřeně rychlé a plynulé. Pracovní tempo není na úkor kvality. Pracovní tempo je stabilní v čase a napříč různými situacemi. Bez kolísání a výkyvů je schopen udržet tempo k dosažení cílů.
Emoce	Emoce jsou zapojené, podporují výkon a doprovází ho. Emoce a věcné řešení jsou integrované. Je vnímavý ke svým emocím, jen minimálně ztrácí kontrolu nad tím, co dělá a říká. Je schopen přizpůsobit svoje reakce na základě porozumění emocím druhých.
Pozornost	Pracuje rychle a bezchybně. Je plně koncentrovaný a pohotový. Nepropadá únavě, stereotypu. Je stabilní i při větší časové zátěži.
Řešení problémů	Je systematický při sledování cílů. Řešení si plánuje dopředu. Hledá správná řešení s ohledem na důsledky. Přemýšlí v širším kontextu.

Tabulka 1: Kompetenční model (Zdroj: Vlastní zpracování)

3.2 Online metoda diagnostiky

Tradiční metoda diagnostiky byla provedena nástroji agentury Motiv P s.r.o., která má významnou roli v oblasti hodnocení, výběru a rozvoje pracovníků na českém trhu. Bylo provedeno testování tří diagnostických testů: Testování klíčových kompetencí, Test

analytického myšlení a Test klíčových postojů. Testy byly prováděny metodou online testování vyplněním formulářů ve webovém prohlížeči.
Test klíčových kompetencí je online test, který obsahuje dotazník s předpoklady klíčových kompetencí a výkonový test. Měřené vlastnosti jsou orientace na úspěch a výsledek, vedení, loajalita, pracovní tempo, orientace na kontakt s klientem, proaktivita, flexibilita, emoční stabilita a praktické myšlení.
Test analytického myšlení zkoumá schopnosti pod časovým tlakem z hlediska výkonu. Zaměřuje se na schopnost analyzovat problém nezávisle na zkušenosti, také zkoumá verbální sdělení.
Test klíčových postojů je online dotazníkový test, který zkoumá postoje i jejich míru. Základem jsou klíčové postoje: Pozitivní myšlení, Myšlení v příležitostech, Důvěryhodnost, Zaujetí a Zacílení.
Z výstupních parametrů, výše uvedených testů, bylo úkolem psychologa sestavit nadefinovaný kompetenční model pro určení úspěšnosti a vhodnosti kandidátů na danou pozici.

3.3 Měření očních pohybů

Distanční tracker pro sledování očních pohybů obsahuje kameru s vysokou vzorkovací frekvencí až 150 snímků za vteřinu s rozhraním USB 3.0. Dále zařízení obsahuje infračervené přisvícení, které způsobuje charakteristické zbarvení zornice. Odrazy na oku způsobené přisvícením jsou využívány detekčním algoritmem pro určení souřadnice bodu sledovaného testovaným subjektem.
Měření probíhá formou zobrazování stimulu na monitoru před sledovanou osobou. Pod tímto monitorem je umístěno polohovatelné záznamové zařízení, které snímá obraz obličeje s frekvencí 50 Hz. Zařízení je připojeno k výkonnému osobnímu počítači, kde dochází k detekci zornic a matematickým transformacím pro zjištění souřadnice místa, kam dotyčný upírá svůj pohled.
K testování bylo využito 12 úloh: bludiště, antisakády, dilemata, IQ test, plynulé sledování očních pohybů v kombinaci s PASAT, T-test, emoce, D2 test, test Multiple object tracking, číselný čtverec, Memory guided sacades a zrcadlové kreslení.
Bludiště je zátěžovou úlohou, ve které má testovaná osoba za úkol dostat se ven z bludiště za měnících se podmínek v průběhu řešení. Antisakády (Mirsky, 2011) jsou častou úlohou pro sledování očních pohybů, kdy je úkolem nesledovat zobrazovanou tečku, ale dívat se na opačnou stranu, než se stimul zobrazí. Dilemata jsou rozhodovací úlohou, v níž se má testovaná osoba rozhodnout, jak by se zachovala v určité společenské situaci. K zadané otázce jsou na výběr 4 odpovědi s různou společenskou přijatelností. IQ test vycházející z běžně používaných testů pro měření fluidní inteligence, v nichž je do vynechaného místa potřeba doplnit navazující grafický vzor. Plynulé sledování očních pohybů má za úkol sledovat koncentraci pohledu na pohybující se bod. Tato úloha je ztížena doplněním o takzvaný PASAT (Correia, 2011), během kterého jsou diktována čísla a pozorovaná osoba sčítá vždy dvě poslední. Tento kombinovaný test ověří skutečné chování v zátěži. T-test je projektivní psychologickou zkouškou (Šípek, 2000), v níž je testované osobě předložena neurčitá (neutrální) situace ve formě fotografie a úkolem testovaných je popsat děj či příběh, který je k fotografii napadá. V našem případě jsou však zkoumány sledované zóny v průběhu řešení. Úloha emoce je koncipována jako sebereflexní test, v němž je zobrazen obličej s neutrálním výrazem a pozorovaná osoba má za úkol vyjádřit míru určité vlastnosti. D2 (Seitl, 2015) je pozornostní test, který jsme využili v online podobě a během testování jsme provedli záznam očních pohybů. Multiple object tracking (MOT; Scholl, 2009) je test, který se zabývá pozorností a zkoumá sledování několika pohybujících se stimulů zároveň. Číselný čtverec (Jirásek, 1992), který byl upraven pro potřeby počítačového testování, obsahuje matici čísel.

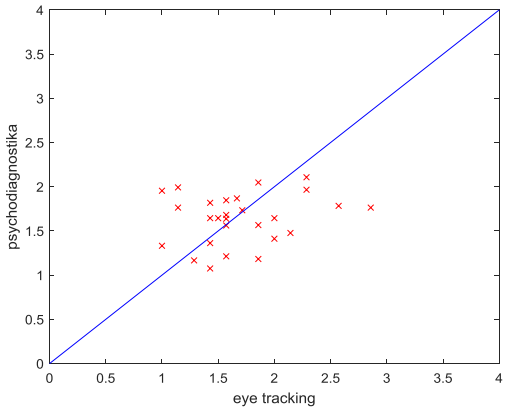
Cílem úlohy je kurzorem myši označit čísla v posloupnosti od nejmenšího po největší. V průběhu řešení dochází k jejich zamíchání. Memory guided sacades (MGS; Israël, 1992) je opět pozornostní úloha, která je kombinací pravidel pro sledování a ignorování zobrazeného bodu. Poslední úlohou je zrcadlové kreslení, testovaný má za úkol obkreslit obrys zobrazený na monitoru, přičemž dochází ke změně chování polohovacího zařízení. Jedná se tedy o zátěžovou situaci, která je současně koncipována na výdrž a adaptaci vzhledem k opakování.

3.4 Výsledky experimentu

Srovnání metod jsme provedli na základě výsledků tradiční metody popsané v kapitole 3.2 a metody eye trackingu viz kapitola 3.3. Parametry, které jsme získali měřením tradičních testů, byly kvantovány na kompetenční model ve škále 0 až 4. Podrobnou analýzou dat získaných pomocí eye trackingu byly určeny elementární parametry, jako sakády, fixace, zóny zájmu, parametrizace trasy pohledu či rychlost. Následovalo skládání těchto dílčích parametrů do komplexnějších charakteristik, které by přispěly k určité kompetenci definované v kompetenčním modelu. Tyto složené parametry byly sestaveny tak, aby v absolutní hodnotě s rostoucím číslem značily lepší výsledek kompetence (konzultováno s psychology pro zajištění možného vlivu na danou kompetenci).

Skládání parametrů si můžeme názorně ukázat na kompetenci rozhodování a parametrech z úlohy dilemata. Zde jsme využili například celkový čas úlohy a také poměr doby pohledu na vybranou odpověď vzhledem k době pohledu na všechny odpovědi dohromady. Jako parametr byl rovněž zvolen počet přeskoků pohledu mezi odpověďmi po prostudování zadání. Dále pak počet opakování pohledu na zvolenou odpověď, či opakovaný pohled na zadání. Tyto parametry ukazují nejen na míru zvažování alternativ, strukturovanost či chaotičnost přístupu, ale i na možnou stylizaci odpovědi – pokud například osoba vybrala jinou odpověď než tu, na kterou se nejdéle dívala. Tyto parametry samy o sobě mají buďto rostoucí, nebo klesající příspěvek na kompetenci a mají různý rozsah. Proto byly všechny převedeny na škálu 0 až 4 (0 nejhorší výsledek, 4 nejlepší výsledek). Zprůměrováním těchto parametrů jsme získali hodnotu výsledné kompetence metodou eye trackingu.

V grafu (**Chyba! Nenalezen zdroj odkazů.**Obrázek 1) je srovnání kompetence rozhodování. Jedná se o porovnání jednotlivých měřených osob a jejich výsledky v tradičním a eye tracking testu.



Obrázek 2 Porovnání kompetence rozhodování tradiční metodou a metodou eye trackingu

Vzhledem k poměrně homogennímu testovacímu vzorku studentů jsme nebyli schopni pokrýt celou škálu, podle které bychom mohli vytvořit normu. Prezentované porovnání kompetencí

získaných tradiční metodou a jednoduchou metodou průměrování přínosu příznaků do dané kompetence ukazuje, že oční příznaky byly zvoleny dobře a nesou informaci o kompetencích.

4 DISKUSE

Standardní psychodiagnostické testy mohou být součástí procesu výběrového řízení. Jedná se však o časově náročné testy, které obvykle vyžadují odbornou obsluhu (v případě online testování není nutná osobní přítomnost odborníka). V současné době se však nevyužívají jiné, dokonalejší metody. Některé neduhy jsou odstraněny pomocí online testování Hroník (2007), jako například vliv pozorovatele.

Nevýhodou eye trackingu v porovnání s online testováním je nutnost navštívit pracoviště s touto technologií, a to z důvodu zajištění definovaných podmínek s dostupností potřebného vybavení. Tím jsou zabezpečeny rovné podmínky všem uživatelům, a tedy i vyšší spolehlivost výstupu. Naopak přidaná hodnota eye trackingu spočívá v rychlejší a zábavnější formě měření bez nutné přítomnosti psychologa. Jde o testování v poměrně přirozeném prostředí, práci s počítačem a úlohami majícími charakter řešení problému. Nejedná se o dotazníkové úlohy.

Armstrong (2017) v souvislosti s využitím kompetencí v řízení lidských zdrojů uvádí mimo výběr pracovníků i oblasti vzdělávání a rozvoje, řízení pracovního výkonu, získávání pracovníků a jejich odměňování. Všechna tato odvětví jsou potenciálně otevřená testování kompetencí metodou eye trackingu, což lze dokumentovat na příkladu využití eye trackingu v oblasti zdravotnictví, např. Wetzel (2009), Tien (2014).

Naše výsledky také potvrzují, že eye tracking představuje vhodnou technologii pro testování kompetencí (viz kapitola 3.4). V příspěvku porovnáváme definované parametry měření s detekcí očních pohybů s tradiční diagnostikou a ukazujeme na jejich závislost. Pro detailnější výsledky se v následujícím výzkumu zaměříme na statistické modelování kompetenčního modelu na základě získaných příznaků očních pohybů.

5 ZÁVĚR

Článek se zabývá potenciálem využití sledování očních pohybů pro hodnocení manažerských kompetencí při výběru pracovníků. Touto problematikou se zabývá projekt Využití technologie sledování očních pohybů pro testování kompetencí č. TH01010233, v rámci kterého byl výzkum proveden a jehož cílem je vytvořit metodu pro výběr zaměstnanců na základě očních pohybů. Prezentované srovnání ukazuje, že navržené parametry očních pohybů nesou informaci o kompetencích a jsou využitelné v personalistice. Na základě našich zjištění lze dále konstatovat, že přidanou hodnotou sledování očních pohybů oproti standardně používaným testům je objektivita, rychlost, testovací prostředí a v neposlední řadě nemožnost plně ovlivnit oční pohyby, tedy i výsledky měření.

Všechny tyto výhody podporují myšlenku zavedení metody eye trackingu do praxe.

Poděkování

Tento článek vznikl v rámci projektu č. TH01010233 – Využití technologie sledování očních pohybů pro testování kompetencí za finanční podpory TA ČR.

Použitá literatura

1. ARMSTRONG, Michael, 2017. Armstrong's handbook of human resource management practice. 14th Edition. New York: Kogan Page Limited. ISBN 978-074-9474-119.
2. BOYATZIS, Richard E., 1982. The competent manager: a model for effective performance. New York: Wiley. ISBN 978-0-471-09031-1.

3. CORREIA, Stephen, 2011. Paced Auditory Serial Attention Test. Encyclopedia of Clinical Neuropsychology. New York, NY: Springer New York, 1840-1845. DOI: 10.1007/978-0-387-79948-3_1319. ISBN 978-0-387-79947-6.
4. DOBIÁŠ, Martin, Jaromír DOLEŽAL, Václav CHYTRÝ, Alena KLESALOVÁ, Pavel KOZELKA a Josef ČERNOHOUS, 2017. Determining a strategy for problem solving based on eye movements [online]. AD ALTA: Journal of Interdisciplinary Research. 26-27. ISSN 1804-7890. Dostupné také z: http://www.magnanimitas.cz/ADALTA/0701/papers/A_dobias.pdf
5. DOBIÁŠ, Martin, Vratislav FABIÁN a Ondřej HOLUB, 2013. An eye tracking system: Towards applications in marketing? AD ALTA: Journal of Interdisciplinary Research. 16-20. ISSN 1804-7890. Dostupné také z: http://www.magnanimitas.cz/ADALTA/0302/papers/A_dobias.pdf
6. DVOŘÁKOVÁ, Zuzana, 2012. Řízení lidských zdrojů. V Praze: C.H. Beck. Beckova edice ekonomie. ISBN 978-80-7400-347-9.
7. FABIÁN, Vratislav, Martin DOBIÁŠ, Jaromír DOLEŽAL a Jiří JOŠT, 2015. Sledování očních pohybů pro diagnostiku v neurovědách [online]. In: Internet a informační systémy pro osoby se specifickými potřebami 2015. Praha: BMI sdružení, s. 1-11. Dostupné také z: http://www.helpnet.cz/sites/default/files/soubory/fabian-50613.pdf
8. HRONÍK, František, 2007. Jak se nespálit podruhé: strategie a praxe výběrového řízení. V Brně: MotivPress. MBA study. ISBN 978-80-254-0698-4.
9. HRONÍK, František, Jitka VEDRALOVÁ a Luboš HORVÁTH, 2008. Kompetenční modely: projekt ESF Učit se praxí. Brno: Motiv Press. ISBN 978-80-904133-2-0.
10. ISRAËL, Isabelle, 1992. Memory-guided saccades: what is memorized? Experimental Brain Research. 90(1), -. DOI: 10.1007/BF00229275. ISSN 0014-4819. Dostupné také z: http://link.springer.com/10.1007/BF00229275
11. JIRÁSEK, Jaroslav, 1992. Číselný čtverec: Příručka. Bratislava: Psychodiagnostika spoločnosť s.r.o.
12. KOUBEK, Josef, 2009. Řízení lidských zdrojů: základy moderní personalistiky. 4., rozš. a dopl. vyd. Praha: Management Press. ISBN 978-80-7261-168-3.
13. KUBEŠ, Marián, Roman KURNICKÝ a Dagmar SPILLEROVÁ, 2004. Manažerské kompetence: způsobilosti výjimečných manažerů. Praha: Grada. Manažer. ISBN 80-247-0698-9.
14. MELE, Maria Laura a Stefano FEDERICI, 2012. Gaze and eye-tracking solutions for psychological research. Cognitive Processing. 13(S1), 261-265. DOI: 10.1007/s10339-012-0499-z. ISSN 1612-4782.
15. MIRSKY, Jacob B., Hilary W. HEUER, Aria JAFARI, Joel H. KRAMER, Ana K. SCHENK, Indre V. VISKONTAS, Bruce L. MILLER a Adam L. BOXER, 2011. Anti-Saccade Performance Predicts Executive Function and Brain Structure in Normal Elders. Cognitive and Behavioral Neurology. 24(2), 50-58. DOI: 10.1097/WNN.0b013e318223f6c6. ISSN 1543-3633.
16. POOLE, Alex a Linden J. BALL, 2006. Eye tracking in human-computer interaction and usability research: Current status and future prospects. In: GHAOUI, Claude. Encyclopedia of human computer interaction. Hershey PA: Idea Group Reference, s. 211-219. ISBN 978-159-1407-980.
17. ROWE, Christopher, 1995. Clarifying the use of competence and competency models in recruitment, assessment and staff development. Industrial and Commercial Training. 27(11), 12-17. DOI: 10.1108/00197859510100257. ISSN 0019-7858.
18. SEITL, Martin, 2015. Testové psychodiagnostické metody pro výběr zaměstnanců. Olomouc: Univerzita Palackého v Olomouci. ISBN 978-80-244-4513-7.

19. SCHOLL, Brian J., 2009. What have we learned about attention from multiple object tracking (and vice versa)? In: DERICK, Don a Lana TRICK. Computation, Cognition, and Pylyshyn. Cambridge: MA: MIT Press, s. 49-78. ISBN 978-0-262-51242-8.
20. ŠIKÝŘ, Martin, 2012. Personalistika pro manažery a personalisty. Praha: Grada. Management (Grada). ISBN 978-802-4741-512.
21. ŠÍPEK, Jiří, 2000. Projektivní metody. Praha: ISV. Psychologie (ISV). ISBN 80-858-6653-6.
22. ŠTIKAR, Jiří, 2003. Psychologie ve světě práce. Praha: Karolinum. ISBN 80-246-0448-5.
23. TIEN, Tony, Philip H. PUCHER, Mikael H. SODERGREN, Kumuthan SRISKANDARAJAH, Guang-Zhong YANG a Ara DARZI, 2014. Eye tracking for skills assessment and training: a systematic review. Journal of Surgical Research. 191(1), 169-178. DOI: 10.1016/j.jss.2014.04.032. ISSN 00224804.
24. UZZAMAN, Sarah a Steve JOORDENS, 2011. The eyes know what you are thinking: Eye movements as an objective measure of mind wandering. Consciousness and Cognition. 20(4), 1882-1886. DOI: 10.1016/j.concog.2011.09.010. ISSN 10538100.
25. WETZEL, Paul, Gregory CHRISTIANSEN a Kevin WARD, 2009. Competency Testing Using a Novel Eye Tracking Device. Academic Emergency Medicine. 16, 280-281. DOI: 10.1111/j.1553-2712.2009.00392_20.x. ISSN 10696563.
26. WOODRUFFE, Charles, 1993. What Is Meant by a Competency? Leadership. 14(1), 29-36. DOI: 10.1108/eb053651. ISSN 0143-7739.

Kontaktní údaje

Ing. Jonáš Erlebach
České vysoké učení technické v Praze, Fakulta elektrotechnická, Katedra ekonomiky, manažerství a humanitních věd
Technická 2, 166 27 Praha 6
Tel: +420 224 355 143
email: jonas.erlebach@fel.cvut.cz

Ondřej Kasl
České vysoké učení technické v Praze, Fakulta elektrotechnická, Katedra ekonomiky, manažerství a humanitních věd
Technická 2, 166 27 Praha 6
Tel: +420 224 355 143
email: ondrej.kasl@fel.cvut.cz

PRAWA OSÓB Z AUTYZMEM I ICH OCHRONA Z PERSPEKTYWY KRAJOWEJ I MIĘDZYNARODOWEJ

THE RIGHTS OF PERSONS WITH AUTISM AND THEIR PROTECTION FROM THE NATIONAL AND INTERNATIONAL PERSPECTIVES

Renata Stefańska-Klar

Streszczenie

Artykuł podejmuje temat praw osób z autyzmem w perspektywie międzynarodowej i krajowej oraz mozliwości ich ochrony. Generalnie wynikają one z takich międzynarodowych dokumentów, ratyfikowanych również przez Polskę, jak Konwencja o prawach osób niepełnosprawnych, sporządzona w Nowym Jorku dnia 13 grudnia 2006 i Karta Praw Osób z Autyzmem przyjętej przez Parlament Europejski w 1996 r. Szczegółowe rozwiązania dla różnych obszarów życia osób z autyzmem są regulowane przez akty prawne powstałe w poszczególnych państwach, w których powinny być uwzględnione oba wymienione wcześniej akty, mimo, że same nie mają charakteru prawnego. W artykule poruszono także problem self-adwokatury, jako zagadnienia ważnego z punktu widzenia ochrony praw osób z autyzmem przez nie same lub przez osoby je reprezentujące.

Słowa kluczowe: *autyzm, ASD vs ASC, prawa, Karta Praw Osób z autyzmem, Konwencja o Prawach Osób Niepełnosprawnych, akty prawne krajowe i międzynarodowe, self-adwokatura*

Abstract

The article deals with the rights of persons with autism in the international and national perspective and the possibilities of their protection. Generally, they result from such international documents, ratified also by Poland, such as the Convention on the Rights of Persons with Disabilities, prepared in New York on December 13, 2006 and the Charter of Rights of Persons with Autism adopted by the European Parliament in 1996. Detailed solutions for different areas of life of people with autism is regulated by legal acts originating in individual countries, in which both previously mentioned acts should be included, even though they are not themselves of a legal nature. The article also discusses the problem of self-advocacy as an issue important from the point of view of protecting the rights of persons with autism either by themselves or by persons representing them.

Keywords: *autism, ASD vs ASC, rights, Charter of Rights of Persons, Convention on the Rights of Persons with Disabilities, national and international legal acts, self-advocacy*

1 WSTĘP

Autyzm to kondycja całożyciowa, powodująca u osób nią dotkniętych zaburzenie wzorca rozwoju i funkcjonowania skutkującego trudnościami w sferze kontaktów międzyludzkich i komunikacji i w zakresie adaptacji do środowiska, również fizycznego. Kondycja ta, u wielu osob z autyzmem związana jest z niepełnosprawnością intelektualną, zwykle również utrudnia ona udział w edukacji, zatrudnieniu i życiu społecznym a także powoduje trudności w osiąganiu samodzielności życiowej, czasem w zakresie prostych czynności codziennego życia (por. *Kryteria diagnostyczne z DSM-5*, 2015). Jest to więc grupa osób o szczególnych potrzebach związanych z wspieraniem rozwoju, terapią, dostosowana do potrzeb edukacją i

różnymi innymi dostosowaniami oraz usługami, zróżnicowanymi ze względu na aktualny stan i ogólny wzorzec mozliwości i trudności danej osoby, różniący się też w zależności od wieku i wymaganego wsparcia. Sytuacja osób z autyzmem jest ściśle związana z funkcjonowaniem ich rodziny, która równiez może potrzebować określonej pomocy czy dostępności do określonych rozwiązań, co może maleć w miarę dorastania osób z autyzmem, jednak tylko w przypadku tych, które będą umiały się usamodzielnić, przykładowo, na etapie edukacji dorosłych czy w przypadku podjęcia pracy, założenia własnej rodziny, itd. Wówczas dostosowania czy wsparcie będzie zależeć od sytuacji i możliwości danej osoby, jak również i środowiska, w którym przyjdzie jej finkcjonować (por. Kość- Ryżko 2013; Jankowska 2013; Kijak 2013; Błędowski, Maciejasz, 2015; Wilmowska-Pietruszyńska 2013; Stefańska-Klar 2010a), często przy wykorzystaniu nowoczesnych technologii cyfrowych oraz możliwości stwarzanych przez Internet (Bolak 2015; Stefańska-Klar 2010b). Z jednej strony, istnieje potrzeba rozpoznania tego, co jest potrzebne osobom z autystycznym wzorcem funkcjonowania do zaspokojenia ich potrzeb, osiągniecia dobrostanu i realizacji osobistego potencjału[1] (dla osób dorosłych, realizujących się w świecie, por. Stefańska-Klar 2017), z drugiej strony istotny jest istniejący stan rzeczy, jesli idzie o prawo regulujące możliwość zrealizowania tychże celów, o to, co moglibyśmy nazwać prawami osób z autyzmem, o ktore mogą się one ubiegać, a także o możliwość ochorny tych praw na drodze rozwiązań legislacyjnych i społecznych, nie zawsze znajdującch oparcie w prawie krajowym czy międzynarodowym[2].

2 PRZEPISY OKREŚLAJĄCE PRAWA OSOBY Z AUTYZMEM

2.1 Karta Praw Osób z Autyzmem

Karta Praw Osób z Autyzmem to 19 punktów, odnoszących się różnych obszarów i dziedzin życia osób z autyzmem, które generalnie przyznają jej prawo do autonomii i niepodlegania dyskryminacji. Według Karty, osoby z kondycja autyzmu mają prawo do:

- możliwie niezależnego, samodzielnego, aktywnego i w pełni wartościowego życia
- rzetelnej diagnozy i opinii medycznej,
- dostępnej, bezpłatnej i adekwatnej edukacji oraz kształcenia i przygotowania zawodowego dostosowanego do ich możliwości,
- uczestnictwa w procesie podejmowania decyzji dotyczących ich przyszłości,
- warunków mieszkaniowych uwzględniających ich specyficzne potrzeby ograniczenia,
- wynagrodzenia wystarczającego do zapewnienia podstawowych potrzeb,
- wsparcia umożliwiającego korzystanie z dóbr kultury, rozrywki, wypoczynku sportu oraz ze środków transportu w formie adekwatnej do ich potrzeb i możliwości,
- poszanowania intymności życia rodzinnego,
- ochrony przed nadużyciami, przemocą fizyczną i zaniedbaniem,
- egzystencji pozbawionej lęku i poczucia zagrożenia związanego z nieuzasadnionym umieszczeniem w szpitalu psychiatrycznym albo w innych instytucjach ograniczających swobodę i wolność osobistą (por. *Uchwała Sejmu Rzeczypospolitej Polskiej z Dnia 12 Lipca 2013 Roku, Karta Praw Osób z Autyzmem)*

[1]Przykładowo, omawia to *Międzynarodowa Klasyfikacja Funkcjonowania, Niepełnosprawności i Zdrowia (ICF) International Classification of Functioning, Disability and Health (ICF2001),* http://apps.who.int/iris/bitstream/10665/42407/67/9241545429_pol.pdf [dostęp z dnia: 15.12.2017]

[2] Obszernie omawia kwestie praw osób z autyzmem i ich ochrony w odniesieniu do sfery edukacji i zatrudnienia opracowanie zbiorowe: Della Fina V., Cera R. (ed.) *Protecting the Rights of People with Autism in the Fields of Education and Employment. International, European and National Perspectives.* Springer Cham Heidelberg New York Dordrecht London 2015 p.197 ISBN 978-3-319-13790-2

Po upływie ponad roku od czasu złożenia poselskiego projektu uchwały zwanej Kartą Praw Osób z Autyzmem został on ostatecznie jednogłośnie przyjęty 12 lipca 2013 roku przez Sejm RP. W sprawozdaniu Komisji Sprawiedliwości i Praw Człowieka oraz Komisji Zdrowia z dn. 13 czerwca 2013 można przeczytać, iż Sejm Rzeczypospolitej Polskiej apeluje do rządu RP oraz władz jednostek samorządu terytorialnego o podejmowanie działań na rzecz urzeczywistnienia tych praw. W uzasadnieniu stwierdza się, iż prawa te wynikają z Konstytucji, Powszechnej Deklaracji Praw Człowieka, Konwencji o prawach osób niepełnosprawnych, Konwencji o prawach dziecka, Standardowych zasad wyrównywania szans osób niepełnosprawnych oraz innych aktów prawa Międzynarodowego i wewnętrznego. Dokument ten został wiernie przetłumaczony i dostosowany do polskich realiów z tekstu Karty Praw Osób z Autyzmem przyjętej przez Parlament Europejski w 1996 roku. Szczególna uwaga zwrócona jest w nim na specyficzne potrzeby osób z autyzmem, których nie uwzględniają inne źródła prawa, karty czy konwencje. Uchwalenie tego dokumentu pozwala mieć nadzieję na dalsze pozytywne zmiany w sferze funkcjonowania społecznego osób z autyzmem (Kość- Ryżko 2013, s. 19)

Karta Praw Osób z Autyzmem nie stanowi aktu prawnego, dlatego jej egzekwowanie powinno opierać się nie na chęci uniknięcia sankcji, a na akceptacji osób z autyzmem jako pełnoprawnych członków społeczeństwa i na przyznaniu im w związku z tym tych samych praw, jakich oczekuje każdy inny człowiek dla siebie samego, z uwzględnieniem odrębności ich potrzeb i prawa do ich respektowania w ramach ogólnie przyjętego porządku społecznego.

2.2 Konwencja o Prawach Osób Niepełnosprawnych

Konwencja o Prawach Osób Niepełnosprawnych została orzeczona 13 grudnia 2006 r. jednogłośnie przyjętą rezolucją 61/106, przez Zgromadzenie Ogólne ONZ, Konwencja jest najszybciej przyjętą konwencją z zakresu praw człowieka w historii ONZ. Jest jednocześnie pierwszą taką konwencją przyjętą w XXI w. Stanowi ona zwycięstwo międzynarodowej społeczności osób niepełnosprawnych, która była w stanie wywalczyć dla siebie akt prawny dotyczący ich praw. Stworzono koalicję 70 międzynarodowych, regionalnych i krajowych organizacji w ramach tzw. Międzynarodowej Grupy Niepełnosprawnych (International Disability Caucus), będących reprezentacja osób niepełnosprawnych całego świata, która wraz państwami członkowskimi ONZ współpracowała na forum ONZ w celu stworzenia traktatu odpowiadającego ich potrzebom (podaję za: Kurowski, 2014 s. 45).

Konwencja opiera się na następujących zasadach, które określa artykuł 3:

- zasada poszanowania dla godności osobistej, indywidualnej autonomii, w tym swobody dokonywania własnych wyborów oraz poszanowania dla niezależności jednostki,
- zasada niedyskryminacji,
- zasada pełnego i efektywnego uczestnictwa w życiu społecznym i włączenia społecznego,
- poszanowania dla odmienności oraz akceptacji osób niepełnosprawnych jako mających wkład w różnorodność rodziny ludzkiej i w człowieczeństwo,
- zasada równych szans,
- zasada dostępności,
- zasada równości pomiędzy kobietami i mężczyznami.

Bardzo ważny i ukazujący nowe podejście do niepełnosprawności jest artykuł 19, gwarantujący osobom niepełnosprawnym prawo do samodzielnego życia i włączenia społecznego. Polsce Konwencja została podpisana 30 marca 2007 r. przez ówczesną minister Pracy i Polityki Społecznej RP – A. Kalatę. Prezydent RP B. Komorowski ratyfikował Konwencję 6 września 2012 r. Akt ratyfikacji został przekazany Sekretarzowi

Generalnemu ONZ 25 września 2012 r. Konwencja została opublikowana w Dzienniku Ustaw 25 października 2012 r. (poz. 1169).
W przeciwieństwie do Karty Praw Osób z autyzmem, Konwencja o Prawach Osób Niepełnosprawnych posada narzędzia sankcjonowania tychże praw w każdym z państw, które ja ratyfikowały. Szczególnie rozwiązaniem wydaje się powołanie (w artykule 34) Komitetu do spraw praw osób niepełnosprawnych. Opis działania tej formacji i możliwości, jakie posiada, przytoczę, cytując słowa Krzysztofa Kurowskiego, eksperta reprezentującego Biuro Rzecznika Spraw Obywatelskich:
Zgodnie z nim, w chwili wejścia w życie Konwencji Komitet ma liczyć 12 członków, a po ratyfikacji przez 60 kolejnych państw liczba to zostanie zwiększona do 18. Członkowie Komitetu będą wybierani przez Państwa-Strony, z uwzględnieniem zasady równo-miernego podziału geograficznego, reprezentacji różnych form cywilizacji i głównych systemów prawnych, oraz zrównoważonej reprezentacji płci i uczestnictwa ekspertów wybranych spośród osób niepełnosprawnych (Kurowski, 2014 s. 48) .
I dalej:
Bardzo ważnym wydaje mi się fakt, iż w Komitecie zasiadają osoby z niepełnosprawnościami. Jest to sygnał zrozumienia przez społeczność międzynarodową, iż najlepszymi ekspertami w dziedzinie niepełnosprawności są same osoby z niepełnosprawnościami. Państwa-Strony zobowiązano do przedłożenia Komitetowi poprzez Sekretarza Generalnego ONZ obszernego sprawozdania dotyczącego działań podjętych celem realizacji zobowiązań określonych Konwencją oraz postępu, jaki się dokonał w Państwie--Stronie w rezultacie tych działań w ciągu dwóch lat od wejścia jej w życie. Kolejne sprawozdania państwa mają przedkładać co cztery lata oraz na prośbę Komitetu. Zgodnie z art. 6 – jeżeli Komitet otrzyma wiarygodne informacje wskazujące na poważne bądź systematyczne łamanie przez Państwo-Stronę praw wymienionych w Konwencji, zwróci się on do Państwa-Strony z prośbą o współpracę przy rozpatrywaniu tych informacji, a w tym celu także o przedstawienie uwag na ich temat. Komitet może wy-znaczyć jednego bądź kilkoro swych członków, by przeprowadzili śledztwo i przekazali mu niezwłocznie jego wyniki. W wypadku, gdy otrzymano upoważnienie i zgodę Państwa-Strony, w ramach dochodzenia można odbyć również wizytę na jego terytorium. Zgodnie z art. 7 Komitet może zażądać, by do sprawozdania dotyczącego działań podjętych celem realizacji zobowiązań określonych w Konwencji dołączono informacje na temat wszelkich środków podjętych w odpowiedzi na dochodzenie przeprowadzone w ramach artykułu 6. Jednak zgodnie z art. 8 każde Państwo-Strona w chwili podpisywania lub ratyfikowania niniejszego Protokołu bądź przystępowania do niego może oświadczyć, że nie uznaje kompetencji Komitetu, o których mowa w artykułach 6 i 7. (Kurowski, op. cit. s. 49).
Tak więc istnieje możliwość ubiegania się o respektowanie postanowień Konwencji o Prawach Osób Niepełnosprawnych w przypadku ich złamania, jednak osoby z autyzmem i ich rodziny, a także rzecznicy powinni być świadomi możliwości w tym zakresie. Istnieją dane na temat respektowania Konwencji w różnych krajach, a także rozstrzygnięć w przypadku odwoływania się w sprawach związanych z łamaniem praw osób niepełnosprawnych do sądów w swoich krajach zamieszkania (np. Malhotra 2012).

2.3 Porozumienie Autyzm Polska

Jedną z inicjatyw, mających na celu ochronę praw osób z autyzmem i ich rodzin jest Porozumienie Autyzm Polska. Jest to pozrozumienie organizacji działających na rzecz osób z autyzmem i ich rodzin i świadczących dla nich potrzebne usługi. Celem organizacji wchodzących w skład Porozumienia jest dążenie do osiągnięcia poprawy jakości życia osób z autyzmem, rozwijanie organizacji pozarządowych pracujących na rzecz dzieci i osób dorosłych z autyzmem oraz ich rodzin, wzajemne wspieranie się i wymiana doświadczeń,

tworzenie reprezentacji zrzeszonych organizacji i ich lobby wobec sektora publicznego, wypracowywanie standardów pomocy osobom z autyzmem oraz zasad i modeli funkcjonowania organizacji i instytucji działających na ich rzecz, monitorowanie respektowania praw dzieci i dorosłych osób z autyzmem oraz ich rodzin a także stopnia zaspokojenia ich potrzeb oraz prowadzenie rzecznictwa interesów środowiska dotkniętego autyzmem (Kość-Ryżko 2013 s.18). Porozumienie Autyzm-Polska powstało aa przełomie roku 1997/1998 z inicjatywy Fundacji SYNAPSIS, kiedy to odbyło się spotkanie założycielskie 27 Organizacji Pozarządowych Pracujących na Rzecz Dzieci i Osób Dorosłych z Autyzmem i Pokrewnymi Zaburzeniami oraz Ich Rodzin podpisało Deklarację Programową (za Kość-Ryżko op.cit.).
Cytując autorkę:
Obecnie członkami Porozumienia Autyzm-Polska jest ok. 50 organizacji świadczących pomoc osobom z autyzmem i ich rodzinom. Zasadniczy cel jaki przyświeca tej ważnej inicjatywie, przeprowadzanej we współpracy z administracją rządową i samorządową, to doprowadzenie do zagwarantowania komplementarnej i specjalistycznej pomocy wszystkim osobom dotkniętym autyzmem, tak aby mogły one korzystać z przysługujących im praw w takim samym stopniu jak osoby pełnosprawne. Organizacje zrzeszone w grupie Autyzm-Polska reprezentuje wybierana co 2 lata Rada składająca się z 5 ich przedstawicieli. ramach Porozumienia Autyzm-Polska od listopada 2003 roku działa również Rzecznik Osób z Autyzmem przy Fundacji SYNAPSIS, który reprezentuje środowisko OzA i ich rodzin w rozmowach z administracją rządową. Do jego zadań należy ponadto konsultowanie zmian w przepisach prawnych oraz prowadzenie rzecznictwa systemowego (politycznego) na rzecz środowiska OzA i ich bliskich. Inicjatywa ta oraz podejmowane przez jej przedstawicieli działania przyczyniły się w znacznym stopniu do poprawy warunków życia i funkcjonowania osób z autyzmem oraz ich rodzin w Polsce w ciągu ostatnich kilkunastu lat. Dzięki podejmowanej współpracy z instytucjami rządowymi i pozarządowymi udało się wprowadzić istotne zmiany w prawodawstwie polskim, a poprzez cyklicznie organizowane kampanie społeczne i specjalistyczne konferencje stopniowo zmieniać oblicze społeczne problematyki związanej z autyzmem i pokrewnymi zaburzeniami rozwojowymi. Konsekwencją tego może być m.in. stopniowa poprawa sytuacji OzA na rynku pracy oraz w edukacji, czemu służy większość programów realizowanych przez organizacje pozarządowe finansowanych ze środków europejskich. Pośrednim efektem wieloletnich starań i lobbingu społecznego na rzecz środowiska związanego z osobami autystycznymi jest przygotowanie i zgłoszenie projektu uchwały Karta Praw Osób z Autyzmem (Kość-Ryżko, op. cit., s.17-18)

2.4 Self-adwokatura a ochrona praw osób z autyzmem

Self-adwokaturą (self-advocacy) określa się bezpośrednie występowanie przez osoby z niepełnosprawnością w ich własnych sprawach, co oznacza mówinie we własnym imieniu, lecz także decydowanie o sobie w sprawach, które bezpośrednio osób tych dotyczą. Prawo do decydowania o sobie przez osoby z niepełnosprawnością intelektualną wyrażone jest m.in. w Konwencji ONZ o prawach osób niepełnosprawnych, której celem jest umożliwienie osobom niepełnosprawnym jak najpełniejszego wykorzystania swoich mozliwości oraz potencjału. Stanowi to odejście od modelu, w którym decyzje dotyczące osoby niepełnosprawnej są podejmowane przez opiekuna (często bez uzgodnienia z samą osobą zainteresowaną) do modelu wspierającego, w którym osoby z niepełnosprawnością intelektualną same uczą się podejmować decyzje oraz ponosić ich konsekwencje przy wsparciu asystenta, który pomaga osobie niepełnosprawnej w autonomicznym podejmowaniu decyzji.
W przypadku osób z autyzmem, u których możliwości intelektualne mogą być na bardzo różnym poziomie, self-adwokatura może oznaczać wyłącznie przemawianie w imieniu i włanym i innych osób z autyzmem (np. na konferencjach naukowych poświęconych

problematyce autyzmu), przy pełnej możliwości podejmowania decyzji we wszystkich swoich sprawach, po bardzo zróżnicowany poziom potrzeb dotyczących wsparcia, jakiego może udzielić asystent. Nawet osoby z autyzmem dysponujące dobrym poziomem umysłowym mogą mieć problemy z komunikacją lub sprawnym zachowaniem się w sytuacjach społecznych, a nawet z wykonaniem prostych czynności z powodu apraksji.
Ruch self-adwokatów rozwija się w całej Europie, czerpiąc wzory z doświadczeń krajów spoza Europy, gdzie powstał i jest wspierany przez szereg organizacji, stowarzyszeń i fundacji, ktore oferują na przykład szkolenia w zakresie tego rodzaju samodzielności. Grupy self-adwokatów uczą się samodzielnego wykonywania różnych czynności życia codziennego (np. załatwiania spraw w urzędach, poszukiwania pracy), rozmawiają o swoich problemach, spotykają się z politykami, występują na konferencjach i sympozjach, a nawet tworzą audycje radiowe i programy telewizyjne, coraz częściej także i w Polsce. Ich mottem jest: nic o nas bez nas. Niestety, w odniesienu do osób z autyzmem, ruch ten wydaje się w naszym kraju dopiero powstawać, na dodatek dotyczy on zasadniczo osób, które osiągnęły wysoki stopień samoświadomosci w zakresie autystycznej tożsamości oraz tę tożsamość akceptują. Coraz częściej możemy ich spotkać na konferencjach czy spotkaniach grup roboczych, głównie jednak przestrzenią ich działań jest Internet, zwłaszcza zamkniete grupy na portalach społecznościowych. Większość znanych autorce osób z autyzmem, które deklarują self-adwokaturę, to osoby wykształcone i niezależne życiowo, nieliczne nie są usamodzielnione i zależą w dużym stopniu od innych. Na poziomie europejskim wspiera self-adwokatów z e środowisk osob z autyzmem międzynarodowa organizacja Autism-Europe, w Polsce są to Fundacje: Wspólnota Nadziei i Prodeste, z którymi autorka współpracuje oraz Synapsis.

2.5 Akty prawne dotyczące niepelnosprawnych, w tym osoby z autyzmem

Na koniec nalezy zwrócić uwagę na stan prawny obszaru, w jakim się poruszamy. Istnieje wiele rozwiązań legislacyjnych, zarowno na poziomie krajowym (w Polsce i innych państwach), jak i międzynarodowym, które regulują rozwiązywanie kwestii życiowych w różnych obsarach zarówno osób z niepełnosprawnościami, w tym, tych z autyzmem, jak i rodzin, opiekunów, służb oferujących im usługi o różnym charakterze czy wreszcie wąsko i szeroko rozumianego oroczenia społecznego wraz z osadzonymi w nim instytucjami. Przepisy te określają, co się komu należy i w jakich okolicznościach, a także jak można ochronić się przed nadużyciami lub lekceważeniem przysługujących komuś praw. Przepisy te odnoszą się do sektorów zdrowia, opieki społecznej, edukacji, pracy i zatrudnienia, kultury, sportu i rekreacji, itd.
Tabele 1-3 zawierają spis aktów prawnych, które regulują sytuację osób niepelnosprawnych, w tym tych z kondycją autyzmu, z obecnością różnorakich sprzężeń lub w postaci czystej. Wybór przepisów i rozwiazań legislacyjnych pochodzi z opracowania przygotowanego przez Rzecznika Praw Obywatelskich (Kurowski, 2014), uzupełniony przez autorkę w świetle jej wiedzy na temat istniejących podstaw prawnych umożliwiających respektowanie i ochronę praw osób z autyzmem.

Tabela 1 Prawa niepełnosprawnych w prawodawstwie krajowym

Akty prawa polskiego
• Konstytucja Rzeczypospolitej Polskiej z dnia 2 kwietnia 1997 r. Dz. U. z 1997 r., Nr 78, poz. 483. • Ustawa o zmianie Konstytucji Polskiej Rzeczypospolitej Ludowej z dnia 10 lutego 1976 r. Dz. U. z 1976 r., Nr 5, poz. 29. • Ustawa z dnia 25 lutego 1964 r. Kodeks rodzinny i opiekuńczy, Dz. U. z 1964 r. Nr 9 poz. 59 z późn.zm. • Ustawa z dnia 23 kwietnia 1964 r. Kodeks cywilny, Dz. U. z 1964 r., Nr 16, poz. 93, z późn. zm. • Ustawa z dnia 17 listopada 1964 r. Kodeks postępowania cywilnego, Dz. U. z 1964 r., Nr 43, poz. 296 z późn. zm. • Ustawa z dnia 21 listopada 1967 r. o powszechnym obowiązku obrony Polskiej Rzeczypospolitej Polskiej, Dz. U. z 1967 r., Nr 44, poz. 220. • Ustawa z dnia 26 czerwca 1974 r. Kodeks pracy, Dz. U. z 1974 r., Nr 24 poz. 141 z późn. zm. • Ustawa z dnia 10 kwietnia 1974 r., o ewidencji ludności i dowodach osobistych, Dz. U. z 2006 r. Nr 139 poz. 993 z późn. zm. • Ustawa z dnia 15 listopada 1984 r. Prawo przewozowe, Dz. U. z 1984 r., Nr 53, poz. 272 z późn. zm.; • Ustawa z dnia 9 maja

1991 r. o zatrudnieniu i rehabilitacji zawodowej osób niepełnosprawnych, Dz. U. z 1991 r. Nr 46, poz. 201 z późn. zm.
• Ustawy z dnia 7 września 1991 o systemie oświaty, Dz. U. z 1991 r., Nr 95, poz. 425 z późn. zm.
• Ustawa z dnia 20 czerwca 1992 r. o uprawnieniach do ulgowych przejazdów środkami publicznego transportu zbiorowego, Dz. U. z 1992 r., Nr 54, poz. 254 z późn. zm.
• Ustawa z dnia 29 grudnia 1992 r. o radiofonii i telewizji, Dz. U. z 1993 r., Nr 7, poz. 34.
• Ustawa z dnia 7 stycznia 1993 r. o planowaniu rodziny, ochronie płodu ludzkiego i warunkach do-puszczalności przerywania ciąży, Dz. U. z 1993 r., Nr 17, poz. 78 z późn. zm.
• Ustawa z dnia 19 sierpnia 1994 r. o ochronie zdrowia psychicznego, Dz. U. z 1994 r. Nr 111 poz. 535 z późn. zm.
• Ustawa z dnia 18 stycznia 1996 r. o kulturze fizycznej, Dz. U. z 1996 r., Nr 25, poz. 113.
• Ustawa z dnia 28 czerwca 1996 r. o zmianie niektórych ustaw o zaopatrzeniu emerytalnym i o ubez-pieczeniu społecznym, Dz. U. z 1996 r., Nr 100, poz. 461.
• Ustawa z 6 czerwca 1997 r. Kodeks karny, Dz. U. z 1997 r., Nr 88, poz. 553 z późn. zm.
• Ustawy z dnia 6 czerwca 1997 r. Kodeks postępowania karnego, Dz. U. z 1997 r., Nr 89, poz. 555 z późń zm.
• Ustawa z dnia 27 sierpnia 1997 r. o rehabilitacji społecznej i zawodowej oraz zatrudnianiu osób nie-pełnosprawnych, Dz. U. z 1997 r., Nr 123, poz. 776 z późn. zm.
• Ustawa o emeryturach i rentach z Funduszu Ubezpieczeń Społecznych z dnia 17 grudnia 1998 r., Dz. U. z 1998 r. Nr 162 poz. 1118
• Ustawy z dnia 24 sierpnia 2001 r., Kodeks postępowania sprawach o wykroczenia, Dz. U. z 2001, Nr 106, poz. 1148 z późn. zm z późn. zm.
• Ustawa z dnia 6 września 2001 r. o dostępie do informacji publicznej, Dz. U. z 2001 r., Nr 112, poz. 1198.
• Ustawa z dnia 6 września 2001 r. Prawo farmaceutyczne, Dz. U. z 2001r., Nr 126, poz. 1381 z późn. zm. • Ustawa z dnia 22 maja 2003 r. o działalności ubezpieczeniowej, Dz. U. z 2003 r., Nr 124, poz. 1151 z późn. zm.
• Ustawa z dnia 12 czerwca 2003 r. Prawo pocztowe, Dz. U. z 2003 r., Nr 130, poz. 1188 z późn. zm.
• Ustawa z dnia 27 czerwca 2003 r. o rencie socjalnej, Dz. U. z 2003 r. Nr 135 poz. 1268 z późn. zm.
• Ustawa z dnia 28 listopada 2003 r. o świadczeniach rodzinnych, Dz. U. z 2003 r., Nr 228, poz. 2255.
• Ustawa z dnia 13.06.2003 r. o zatrudnieniu socjalnym, DzU 2011, nr 43, poz. 225.
• Ustawa z dnia 13.06.2003 r. o zatrudnieniu socjalnym, tekst jednolity, DzU 2011, nr 43, poz. 225, nr 205, poz. 1211.
• Ustawa z dnia 28.11.2003 r. o świadczeniach rodzinnych, DzU 2003, nr 228 poz. 2255.
• Ustawa z 12 marca 2004 o pomocy społecznej, Dz. U. z 2004 r. Nr 64, poz. 593 z późn. zm.
• Ustawa z 16 lipca 2004 r. Prawo telekomunikacyjne, Dz. U. z 2004 r., Nr 171, poz. 1800 z późn. zm.
• Ustawa z dnia 27 sierpnia 2004 r. o świadczeniach opieki zdrowotnej finansowanych ze środków publicznych, Dz. U. z 2004 r., Nr 210, poz. 2135.
• Ustawa z dnia 17 lutego 2005 r. o informatyzacji podmiotów realizujących zadania publiczne, Dz. U. z 2005 r., Nr 64, poz. 56 z późn. zm.
• Ustawa z 21 kwietnia 2005 r. o opłatach abonamentowych Polskiej Dz. U. z 2005 r., Nr. 85, poz. 728 z późń. zm.
• Ustawa z dnia 1 lipca 2005 r. o zmianie ustawy o ochronie zdrowia psychicznego, Dz. U. z 2005 r .Nr 141 poz. 1183.
• Ustawa z dnia 27 lipca 2005 r. Prawo o szkolnictwie wyższym, Dz. U. z 2005, Nr 164, poz. 1365 z późn. zm.
• Ustawa z dnia 29.07.2005 r. o przeciwdziałaniu przemocy w rodzinie, DzU 2005, nr 180, poz. 1493.
Ustawa z dnia 27 kwietnia 2006 r. o spółdzielniach socjalnych, Dz. U. z 2006 r. Nr 94 poz. 651 z późn.zm.
• Ustawa z dnia 8 września 2006 r. o państwowym ratownictwie medycznym, Dz. U. z 2006 r., Nr 191, poz. 1410 z późn. zm.
• Ustawa z dnia 8 września 2006 r. o zmianie ustawy o kulturze fizycznej, Dz. U. z 2006 r., Nr 208, poz.1531.
• Ustawa z dnia 8 grudnia 2006 r. o finansowym wsparciu tworzenia lokali socjalnych, mieszkań chro-nionych, noclegowni i domów dla bezdomnych Dz. U. z 2006 r., Nr 251, poz. 1844 z późn. zm.
• Ustawa z dnia 9 maja 2007 r. o zmianie ustawy – Kodeks postępowania cywilnego oraz niektórych innych ustaw, Dz. U. z 2007 r., Nr 121, poz. 831.
• Ustawa z dnia 3 października 2008 r. o zmianie ustawy o kulturze fizycznej, Dz. U. z 2008 r., Nr 195, poz. 1200.
• Ustawa z dnia 6 listopada 2008 r. o prawach pacjenta i Rzeczniku Praw Pacjenta, Dz. U. Z 2009 r., Nr 52 poz. 417 z późń. zm.
• Ustawa z dnia 21 listopada 2008 r. o zmianie ustawy o rehabilitacji zawodowej i społecznej oraz zatrudnianiu osób niepełnosprawnych, ustawy o podatkach i opłatach lokalnych oraz ustawy o bezpieczeństwie żywności i żywienia, Dz. U. z 2008 r., Nr 223, poz.1463.
• Ustawa z 21 listopada 2008 r. o służbie cywilnej, Dz. U. z 2008 r., Nr 227, poz. 1505 z późn. zm.
• Ustawa z dnia 12 lutego 2009 r. o zmianie ustawy o wyborze Prezydenta Rzeczypospolitej Polskiej, ustawy o referendum ogólnokrajowym oraz ustawy – Ordynacja wyborcza do Parlamentu Europejskiego, Dz. U. z 2009, Nr 202, poz. 1547.
• Ustawa z dnia 27 sierpnia 2009 r. przepisy wprowadzające ustawę o finansach publicznych, Dz. U. z 2009 r., Nr 157, poz. 1241.
• Ustawa z dnia 19 listopada 2009 r. o zmianie ustawy o wyborze Prezydenta Rzeczypospolitej Polskiej, ustawy – Ordynacja wyborcza do rad gmin, rad powiatów i sejmików województw oraz ustawy o bezpośrednim wyborze wójta, burmistrza i prezydenta miasta, Dz. U. z 2009, Nr 213, poz. 1651.
• Ustawa z dnia 12 lutego 2010 r. o zmianie ustawy o informatyzacji podmiotów realizujących zadania publiczne oraz niektórych innych ustaw, Dz. U. z 2010 r., Nr 40, poz. 230.
• Ustawy z dnia 25 czerwca 2010 r. o sporcie, Dz. U. z 2010 r., Nr 127, poz. 857.
• Ustawa z dnia 29 października 2010 o zmianie ustawy o rehabilitacji zawodowej i społecznej oraz zatrudnianiu osób niepełnosprawnych oraz niektórych innych ustaw, Dz. U. z 2010 r., Nr 226, poz. 1475.
• Ustawa z dnia 26 listopada 2010 r. o zmianie niektórych ustaw związanych z realizacją ustawy budżetowej, Dz. U. z 2010 r., Nr 238, poz. 1578.
• Ustawa z dnia 3 grudnia 2010 o wdrożeniu niektórych przepisów Unii Europejskiej w zakresie rów-nego traktowania, Dz. U. z 2010, Nr 254, poz. 1700.
• Ustawa z dnia 3 grudnia 2010 r. o zmianie ustawy o ochronie zdrowia psychicznego, Dz. U. z 2011 r., Nr 6 poz. 19.
• Ustawa z 5 stycznia 2011r. Kodeks wyborczy, Dz. U. z 2011 r., Nr 21, poz. 112 z późn. zm.
• Ustawa z dnia 11 lutego 2011 r. o działalności leczniczej, Dz. U. z 2011 r., Nr 112, poz. 654.
• Ustawa z dnia 18 marca 2011 r. o zmianie ustawy Prawo o szkolnictwie wyższym, ustawy o stopniach naukowych i tytule

naukowym oraz o stopniach i tytule w zakresie sztuki oraz o zmianie niektórych innych ustaw, Dz. U. z 2011 r. Nr 84 poz. 455.
• Ustawa z 27 maja 2011 r. o zmianie ustawy Kodeks wyborczy oraz ustawy Przepisy wprowadzające ustawę Kodeks wyborczy, Dz. U. z 2011 r., Nr 147, poz. 881.
• Ustawa z dnia 9.06.2011 r. o wspieraniu rodziny i systemie pieczy zastępczej, DzU 2011, nr 149, poz. 887.
• Ustawa z 19 sierpnia 2011 r. o zmianie ustawy o służbie cywilnej i niektórych innych ustaw, Dz. U.z 2011 r., Nr 201, poz. 1183.
• Ustawa z dnia 19 sierpnia 2011 r. o języku migowym i innych środkach komunikowania się, Dz. U.z 2011 r., Nr 209 poz. 1243.
• Ustawa z dnia 30 sierpnia 2011 r., o zmianie ustawy o rencie socjalnej, Dz. U. z 2011 r., Nr 224, poz.1338.
• Ustawa z dnia 7 grudnia 2012 r. o zmianie ustawy o ochronie przyrody oraz ustawy o rehabilitacji zawodowej i społecznej oraz zatrudnianiu osób niepełnosprawnych, Dz. U. 2013 r. poz. 73.
• Rozporządzenie Ministra Łączności z dnia 21 października 1996 r. w sprawie określenia zakresu dostępu osób niepełnosprawnych do świadczonych usług pocztowych lub telekomunikacyjnych o charakterze powszechnym, Dz. U. z 1996 r., Nr 127, poz. 598.
• Rozporządzenie Prezydenta Rzeczypospolitej Polskiej z dnia 14 marca 2000 r. w sprawie szczegółowego trybu postępowania w sprawach o nadanie lub wyrażenie zgody na zrzeczenie się obywatelstwa polskiego oraz wzorów zaświadczeń i wniosków, Dz. U. z 2000 r., Nr 18, poz. 231.r
• Rozporządzenie Ministra Edukacji Narodowej z dnia 29 marca 2001 r. zmieniające rozporządzenie w sprawie klasyfikacji zawodów szkolnictwa zawodowego Dz. U. z 2001 r., Nr 34, poz. 405.
• Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicz-nych, jakim powinny odpowiadać budynki i ich usytuowanie, Dz. U. z 2002 r. Nr 75 poz. 690 z późn. zm.
• Rozporządzenie Ministra Polityki Społecznej z dnia 19 października 2005 r. w sprawie domów po-mocy społecznej, Dz. U. z 2005 r. Nr 217 poz. 1837.
• Rozporządzenia Ministra Pracy i Polityki Społecznej z dnia 14 grudnia 2007 r. w sprawie zakładów aktywności zawodowej, Dz. U. z 2007 r., Nr 242, poz. 1776.
• Rozporządzenia Ministra Infrastruktury z dnia 7 marca 2008 r. w sprawie wymagań, jakie muszą spełniać cmentarze, groby i inne miejsca pochówku zwłok i szczątków, Dz. U. z 2008, Nr 48, poz. 284.
• Rozporządzenie Ministra Zdrowia z dnia 29 sierpnia 2009 r. w sprawie świadczeń gwarantowanych z zakresu zaopatrzenia w wyroby medyczne będące przedmiotami ortopedycznymi oraz środki pomocnicze, Dz. U. z 2009 r., Nr 139 poz. 1141.
• Rozporządzenie Ministra Zdrowia z dnia 18 grudnia 2009 r. w sprawie kategorii produktów leczniczych, na których opakowaniach zewnętrznych nie umieszcza się nazwy produktu leczniczego w systemie Braille'a, Dz. U. z 2009 r., Nr 218, poz. 1700.
• Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 22 grudnia 2009 r. Zmieniające Rozporządzenie w sprawie kryteriów oceny niepełnosprawności u osób w wieku do 16 roku życia, Dz.U.09.226.1829, Dz. U. z dnia 31 grudnia 2009 r.
• Rozporządzenie Ministra Edukacji Narodowej z dnia 17 listopada 2010 r. w sprawie warunków organizowania kształcenia, wychowania i opieki dla młodzieży niepełnosprawnych oraz niedostosowanych społecznie w specjalnych przedszkolach, szkołach i oddziałach oraz w ośrodkach, Dz. U. z 2010, Nr 228, poz. 1489.
• Rozporządzenia Ministra Pracy i Polityki Społecznej z 22 marca 2012 r., w sprawie mieszkań chronionych, Dz. U. z 2012 r. poz. 305.
• Uchwała Sejmu Rzeczpospolitej Polskiej z dnia 1 sierpnia 1997 r. Karta Praw Osób Niepełnosprawnych, M. P. z 1997 r., Nr 50, poz. 475.

Tabela 2. Prawa niepełnosprawnych w prawodawstwie międzynarodowym

Akty prawa międzynarodowego
• Karta Narodów Zjednoczonych z dnia 26 czerwca 1945 r. Dz. U. z dnia 6 marca 1947 r., Nr 23, poz. 90. • Rezolucja Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 10 grudnia 1948 r. • Powszechna Deklaracja Praw Człowieka. • Konwencja o Ochronie Praw Człowieka i Podstawowych Wolności z dnia 4 listopada 1950 r. Dz. U. z 1993 r., Nr 61, poz. 284. • Zalecenie Konferencji Ogólnej Międzynarodowej Organizacji Pracy z dnia 1 czerwca 1955 r. dotyczące rehabilitacji zawodowej osób niepełnosprawnych. • Europejska Karta Społeczna z dnia 18 października 1961 r., Dz. U. z 1999 r., Nr 8, poz. 67. • Międzynarodowy Pakt Praw Gospodarczych, Socjalnych i Kulturalnych z dnia 16 grudnia 1966 r.Dz. U. z 1997 r., Nr 38, poz. 169. • Międzynarodowy Pakt Praw Obywatelskich i Politycznych z dnia 16 grudnia 1966 r. Dz. U. z 1997 r., Nr 38, poz. 167. • Konwencja dotycząca rehabilitacji zawodowej i zatrudnienia osób niepełnosprawnych z dnia 20 czerwca 1983 r. Dz. U. z 2005 r., Nr 43, poz. 412. • Konwencja o prawach dziecka z 20 listopada 1989 r., Dz. U. z 1991 r., Nr 120, poz. 526. • Konwekcja o prawach osób niepełnosprawnych Dz. U. z 2012 r. poz.1169. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 20 grudnia 1971 r. 2856 (XXVI) – Deklaracja praw osób umysłowo upośledzonych. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 9 grudnia 1975 r. 2856 (XXVI) – Deklaracja praw osób niepełnosprawnych. • Rezolucja Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 16 grudnia 1976 r. 31/123 w sprawie proklamowania roku 1981 jako Międzynarodowy Rok Osób Niepełnosprawnych. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 3 grudnia 1982 r. 37/52 – Światowy program działań na rzecz osób niepełnosprawnych. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych 37/53 z dnia 3 grudnia 1982 r. w sprawie proklamowania okresu 1983-1992 Dekadą osób niepełnosprawnych Narodów Zjednoczonych.

• Zalecenie Konferencji Ogólnej Międzynarodowej Organizacji Pracy z dnia 20 czerwca 1983 r. dotyczące rehabilitacji zawodowej osób niepełnosprawnych. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 15 marca 1990 r. 44/70 Wytyczne dla działań z rozwoju zasobów ludzkich w dziedzinie niepełnosprawności. • Rezolucje Rady Ministrów Unii Europejskiej z dnia 31 maja 1990 r. w sprawie integracji dzieci i młodych osób niepełnosprawnych w zwykłych systemach edukacji. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 17 grudnia 1991 r. 46/119 Zasady ochrony osób z chorobą psychiczną i poprawa opieki chorych psychicznie. • Zalecenie Komitetu Ministrów Rady Europy z dnia 9 kwietnia 1992 r. nr (92)6 w sprawie spójnej polityki wobec osób niepełnosprawnych. • Uchwała Zgromadzenia Ogólnego Organizacji Narodów Zjednoczonych z dnia 25 grudnia 1993 r. • 48/96 Standardowe zasady wyrównywania szans osób niepełnosprawnych. • Zalecenie Komitetu Ministrów Rady Europy dla Państw Członkowskich z dnia 5 kwietnia 2006 r. Rec(2006)5 Plan działań Rady Europy w celu promocji praw i pełnego uczestnictwa osób niepełnosprawnych w społeczeństwie: Podnoszenie jakości życia osób niepełnosprawnych w Europie 2006-2015.

Tabela 3. Prawa niepełnosprawnych w prawodawstwie UE

Akty Unii Europejskiej
• Traktat z Amsterdamu zmieniający Traktat o Unii Europejskiej, Traktaty ustanawiające Wspólnoty Europejskie i niektóre związane z nimi akty z dnia 2 października 1997 r. Dz. U. z 2004 r., Nr 90 poz., 864/31. • Traktat z Lizbony zmieniający Traktat o Unii Europejskiej i Traktat ustanawiający Wspólnotę Euro-pejską z dnia 13 grudnia 2007 r., Dz. U. z 2009 r., Nr 209, poz. 1569. • Dyrektywa Parlamentu Europejskiego i Rady Unii Europejskiej z dnia 20 listopada 2001 r. 2001/85/WE odnosząca się do przepisów szczególnych dotyczących pojazdów wykorzystywanych do przewozu pasażerów i mających więcej niż osiem siedzeń poza siedzeniem kierowcy oraz zmieniająca dyrektywy 70/156/EWG i 97/27/WE, Dziennik Urzędowy Wspólnot Europejskich z 2002 r., L 042. • Decyzja Rady Unii Europejskiej z dnia 3 grudnia 2001 r. (2001/903/WE) w sprawie Europejskiego Roku Osób z Niepełnosprawnością, Dz. Urz. Wspólnot Europejskich z 2001 r., L. 335. • Rozporządzenie Parlamentu Europejskiego i Rady Unii Europejskiej z dnia 5 lipca 2006 r. nr 1107/2006 w sprawie praw osób niepełnosprawnych oraz osób o ograniczonej sprawności ruchowej podróżujących drogą lotniczą, Dz. Urz. Unii Europejskiej z 2004 r., L 204. • Rozporządzenie Parlamentu Europejskiego i Rady Unii Europejskiej z dnia 23 października 2007 r. nr 1371/2007 dotyczące praw i obowiązków pasażerów w ruchu kolejowym, Dz. Urz. Unii Europejskiej z 2007 r., L 315. • Rozporządzenie Komisji Europejskiej z dnia 6 sierpnia 2008 r. nr 800/2008 uznające niektóre rodzaje pomocy za zgodne ze wspólnym rynkiem w zastosowaniu art. 87 i 88 Traktatu ustanawiającego Wspólnotę Europejską, Dz. Urz. Unii Europejskiej z 2008 r., L 214. • Decyzja Rady Unii Europejskiej z dnia 26 listopada 2009 r. 2010/48/WE w sprawie zawarcia przez Wspólnotę Europejską Konwencji Narodów Zjednoczonych o prawach osób niepełnosprawnych, Dz. Urz. Unii Europejskiej z 2010 r., L. 23. • Komunikat Komisji Europejskiej z dnia 30 lipca 1996 r. w sprawie równych szans osób niepełno-sprawnych „Nowa strategia Wspólnoty Europejskiej w odniesieniu do osób niepełnosprawnych". • Rezolucja Rady Unii Europejskiej z dnia 20 grudnia 1996 r. o Równości Szans Osób Niepełnosprawnych, Dz. Urz. Wspólnot Europejskich z 1997 r., C 12. • Komunikat Komisja Europejska z dnia 12 maja 2000 r. COM (2000) 284 final. skierowany do Rady Europejskiej, Parlamentu Europejskiego, Komitetu Ekonomiczno-Społecznego i Komitetu Regionów „W kierunku Europy bez barier dla osób z niepełnosprawnością". • Europejska Agenda Społeczna przyjęta na spotkaniu Rady Europejskiej w Nicei 7-9.grudnia 2000 r., Dz. Urz. Wspólnot Europejskich z 2001r., Nr C 157. • Uchwała Komitetu Ministrów Rady Europy z dnia 21 października 2001 r. ResAP(2001)3 w sprawie dążenia do pełnego obywatelstwa osób z niepełnosprawnościami poprzez stosowanie technologii ułatwiających włączenie takich osób w życiu społecznym. • Rezolucja Parlamentu Europejskiego z dnia 30 listopada 2006 r. (2006/2105 (INI)) w sprawie sytuacji osób niepełnosprawnych w rozszerzonej Unii Europejskiej: Europejski Plan Działania na lata 2006-2007, Dziennik Urzędowy Unii Europejskiej z 2006 r., C 316E. • Rezolucja Rady Unii Europejskiej z 17 marca 2008 r. 2008/C 75/01 w sprawie sytuacji osób niepełno-sprawnych w Unii Europejskiej, Dziennik Urzędowy Unii Europejskiej z 2008 r., C 75. • Zalecenie Rady UE z dnia 8 czerwca 2009 r. w sprawie działań w dziedzinie rzadkich chorób (2009/C 151/02), DzU UE C 2009.151.7. • Komunikat Komisji Europejskiej z dnia 15 listopada 2010 r. IP/10/1505 Europejska strategia w sprawie niepełnosprawności 2010–2020. • Rezolucja Parlamentu Europejskiego z dnia 25 października 2011 r. (2010/2272(INI) w sprawie mobilności i włączenia osób z niepełnosprawnościami oraz europejskiej strategii w sprawie niepełno-sprawności 2010–2020.

Literatura

1. BŁĘDOWSKI P., MACIEJASZ M., *Rozwój opieki długoterminowej w Polsce – stan i rekomendacje.* Nowiny Lekarskie 2013, 82, 1, 61–69
2. BOLAK E., *Platforma internetowa „Kraina OZA"– innowacyjne narzędzie aktywizacji społecznej i zawodowej dorosłych osób z autyzmem w ramach*

urzeczywistniania należnych im praw. Niepełnosprawność – zagadnienia, problemy, rozwiązania. Nr I/2015(14)
3. DELLA FINA V., CERA R. (ed.) *Protecting the Rights of People with Autism in the Fields of Education and Employment. International, European and National Perspectives*. Springer Cham Heidelberg New York Dordrecht London 2015 p.197 ISBN 978-3-319-13790-2
4. JANKOWSKA M., *RAPORT 2013. Autyzm – Sytuacja Dorosłych*, Warszawa, 2014
5. KIJAK R., *Niepełnosprawność intelektualna – między diagnozą a działaniem. Seria poświęcona klientom pomocy społecznej*, Warszawa: Centrum Rozwoju Zasobów Ludzkich, 2013. 126 p.ISBN 978-83-61638-92-6
6. *Konwencja o prawach osób niepełnosprawnych sporządzona w Nowym Jorku dnia 13 grudnia 2006* r. [w:] Dziennik Ustaw Rzeczypospolitej Polskiej Warszawa, dnia 25.10.2012. http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20120001169/O/D20121169.pdf [dostęp z dnia: 15.12.2017]
7. KOŚĆ-RYŻKO K., *Podręcznik Dobrych Praktyk „Wsparcie osób z autyzmem II"*, Warszawa 2013 https://www.pfron.org.pl/fileadmin/ftp/opracowania_UE/Wsparcie_osob_z_autyzmem_pilotaz/Podrecznik_Dobrych_Praktyk_ost.pdf [dostęp 15.12. 2017]
8. *Kryteria diagnostyczne z DSM-5* . Wrocław: Wyd. 1, Edra Urban & Partner Wydawnictwo, 2015. s.370 ISBN: 978-83-65195-41-8
9. KUROWSKI K., *Wolności i prawa człowieka i obywatela z perspektywy osób z niepełnosprawnościami*. Biuro Rzecznika Praw Obywatelskich, Agencja Reklamowo-Wydawnicza A. Grzegorczyk Warszawa, 2014 p 224 .ISBN 978-83-938366-6-6
10. MALHOTRA R., *Has the Charter Made a Difference for People with Disabilities?: Reflections and Strategies for the 21st Century Reflections and Strategies for the 21st Century*, The Supreme Court Law Review: Osgoode's Annual Constitutional Cases Conference 58, 2012 p.273-297 http://digitalcommons.osgoode.yorku.ca/sclr/vol58/iss1/10 [dostęp dn. 12.12.2017].
11. *Międzynarodowa Klasyfikacja Funkcjonowania, Niepełnosprawności i Zdrowia (ICF)*
12. *International Classification of Functioning, Disability and Health (ICF2001),*
13. http://apps.who.int/iris/bitstream/10665/42407/67/9241545429_pol.pdf [dostęp z dnia:
14. 15.12.2017]
15. STEFAŃSKA-KLAR R., *Autystyczny wzorzec funkcjonowania w kontekście zasobów*
16. *osobistych. Badania eksploracyjne dorosłych w nieklinicznej próbie*. W: Recenzovaný sborník
17. příspěvků vědecké interdisciplinární mezinárodní vědecké konference QUAERE 2017 roč.
18. VII, Magnanimitas, Hradec Králové, 2017 pp.689-698 ISBN 978-80-87952-20-7
19. STEFAŃSKA-KLAR R., *Studenci z autyzmem i zespołem Aspergera. Funkcjonowanie, przyczyny sukcesów i porażek, warunki skutecznego wspierania*. W: I. Bieńkowska (red) W kręgu resocjalizacji i wybranych zagadnień rozwoju oraz funkcjonowania osób niepełnosprawnych. Tom 2. Wydawnictwo „Scriptum", Gliwice-Kraków, 2010a ISBN 978-83-60163-58-0
20. STEFAŃSKA-KLAR R., *Use the Internet in Supporting and Educating Persons with Autism and Asperger Syndrome. Special Concern for College and University Students*. In: E. Smyrnova-Trybulska (ed) Use of E-learning in the Training of Professionals in the Knowledge Society. Cieszyn-Katowice, STUDIO NOA, 2010b, s. 249-260 ISBN: 978-83-60071-30-4

21. *Uchwała Sejmu Rzeczypospolitej Polskiej z Dnia 12 Lipca 2013 Roku, Karta Praw Osób z Autyzmem*,dhttp://orka.sejm.gov.pl/opinie7.nsf/nazwa/380_u/$file/380_u.pdf, [dostęp z dnia: 14.12.2017]
22. WILMOWSKA-PIETRUSZYŃSKA A., *Ryzyko niezdolności do samodzielnej egzystencji – konieczność zabezpieczenia społecznego*. Polityka Zdrowotna X, marzec 2012, 139 [dostęp dn. 23.02.2013: www.pzh.gov.pl].

Kontakt

dr. Renata Stefańska-Klar, Ph.D.
Uniwersytet Śląski w Katowicach
ul. Bielska 62, 43-400 Cieszyn
email: renata.stefanska-klar@wp.pl

VYHODNOTENIE URČITÝCH STRESOVÝCH INDIKÁTOROV A STRESOVEJ ODOLNOSTI A ICH POROVNANIE V ZÁVISLOSTI OD POHLAVIA A MIESTA BYDLISKA U RESPONDENTOV ZO SLOVENSKA

EVALUATION OF CERTAIN STRESS INDICATORS AND STRESS RESISTANCE AND THEIR COMPARISON ACCORDING TO GENDER AND PLACE OF RESIDENCE AMONG RESPONDENTS FROM SLOVAKIA

Andrea Baranovská, Karol Kováč

Abstrakt

Stres je každodennou súčasťou nášho života. Každodenné udalosti predstavujú stresory, s ktorými sa musí jednotlivec neustále vyrovnávať. Stres začína byť nebezpečným ak pôsobí na organizmus dlhodobo. Selye dokázal význam hypotalamo-hypofýzo-adrenokortikálnej osi pri zvládaní záťaže. V našej štúdii sa zameriavame a meriame prostredníctvom HRV úroveň aktivácie sympatického a parasympatického nervového systému. Vzorku tvorilo 881 participantov, ktorí boli vyšetrení prostredníctvom prístroja na základe HRV (heart rate variability) analýzy, ktorá analyzuje srdcovú frekvenciu. V priebehu 3 minút prístroj analyzuje priebeh tepovej frekvencie, časovú variabilitu medzi jednotlivými údermi srdca, počet možných arytmií. Analýza v priebehu merania je zaznamenávaná v HRV tachografe. Na základe nameraných údajov sú algoritmicky prepočítavané indikátory: úroveň prežívaného stresu v organizme, úroveň aktivácie sympatického a parasympatického nervového systému, index vyčerpanosti, vyváženosť autonómneho nervového systému, prežívaná miera psychického a telesného stresu, úroveň stresovej odolnosti. Zistili sme, že rozdiely medzi pohlaviami nie sú významné, avšak muži vykazovali vyššiu mieru nevyváženej ANS – a to aj s prevahou sympatika aj parasympatika. Pri porovnaní respondentov z hľadiska bydliska sme zistili, že respondenti z niektorých okresov vykazovali vyššiu mieru nevyváženej ANS ako iné. Štúdia prináša prehľad výsledkov a podnety pre ďalšie skúmania.

***Kľúčové slová**: HRV, stres, autonómny nervový systém, sympatický nervový systém, parasympatický nervový systém*

Abstract

Stress is an everyday part of our life. Everyday events are stressors that the individual must always balance. Stress begins to be dangerous and acts on the organism for a long time. Selye demonstrated the importance of the hypothalamo-pituitary-adrenocortical axis in handling the burden. In our study, we focus and measure the level of sympathetic and parasympathetic nervous system activation through HRV. The sample consisted of 881 participants who were screened using HRV (heart rate variability) analysis, which analyses heart rate. Within 3 minutes, the device analyses the heart rate, time variability between individual heart attacks, and the number of possible arrhythmias. Analysis during the measurement is recorded in the HRV tachograph. On the basis of measured data, algorithmically converted indicators are the level of stress in the body, the level of activation of the sympathetic and parasympathetic nervous system, the exhaustion index, the balance of the autonomic nervous system, the survival rate of psychic and physical stress, the level of stress resistance. We found that gender differences were not significant, but men showed a higher rate of unbalanced ANS -

with both sympathetic and parasympathetic predominance. When comparing the respondents in terms of residence, we found that respondents from some districts showed a higher rate of unbalanced ANS than others. The study provides an overview of the results and suggestions for further research.

Key words: *HRV, stress, autonomic nervous system, sympathetic nervous system, parasympathetic nervous system*

1. Úvod

Za bežných okolností sa organizmus nachádza v rovnovážnom stave. Stresová reakcia nastáva ak pôsobiaci podnet alebo situácia sú extrémne vzrušujúce alebo ohrozujúce. Tzv. stresor môže byť signálom skutočného ako predstavovaného ohrozenia. Na základe toho sa v organizme spúšťa celý rad procesov, ktorých cieľom je opätovné navodenie rovnováhy. Začiatkom 20. storočia Cannon (1929) popísal koncept samoregulácie, ktorá zabezpečuje udržiavanie stáleho vnútorného prostredia organizmu. Vychádzal a popísal základné charakteristiky homeostázy:

- stálosť v otvorenom systéme (napr. telesná teplota);
- udržiavanie rovnováhy vyžaduje aktiváciu systému brániaceho sa zmene;
- regulačný systém zabezpečujúci homeostázu vyžaduje mechanizmy, ktoré spolupracujú;
- homeostáza je organizovaná samoregulácia (Cannon, 1963).

Schopnosť homeostatických mechanizmov vyrovnávať účinky zmien sa mení v priebehu života človeka. Nemusia fungovať od narodenia, prípadne sa v starobe stávajú menej účinné – napr. starší ľudia sa horšie vyrovnávajú so záťažovými situáciami, ktorými môže byť fyzická námaha apod. (Pocock et al., 2004). Ďalšie výskumy však preukázali nedostatočnosť modelu homeostázy na popísanie zmien prebiehajúcich pri stresovej reakcii. Selye rozpracoval koncept heterostázy (1984), ktorú označil za navodenie nového stabilného stavu prostredníctvom aktivácie fyziologických adaptačných reakcií a latentných reakcií tkanív. Mrosovsky (in Schulkin, 2011) zaviedol koncept rheostázy, čo je vlastne prediktívna homeostáza. Bauman (tamtiež) vychádzal pri stanovení definície pojmu homeorhesis z toho, že koordinácia metabolizmu telesných tkanív obsahuje oba typy regulácie – homestázu aj homeoorhézu. Sterling a Eyer (in Goldstein, 2010) zaviedli pojem allostáza, ktorý je rozdielny od homeostázy. Allostáza je schopnosť dosiahnuť stabilitu pomocou zmien. Allostáza tiež zahŕňa v sebe vnímanie situácie v kontexte, v ktorom prebieha a schopnosť aktivovať primeranú reakciu.

Vyhodnotenie stresora je podmienené našimi životnými skúsenosťami, genetickou predispozíciou k vzrušivosti, nastavenia človeka.

Stresorom môže byť akýkoľvek podnet z vonkajšieho alebo vnútorného prostredia narušujúci rovnováhu organizmu a vedúci k aktivovaniu stresovej reakcie, rovnako môže byť stresorom aj nedostatok podnetov – deprivácia. Typ stresora a stupeň jeho významu určujú mieru stresovej reakcie. Ak mozog vyhodnotí pôsobiaci podnet ako stresor, spúšťa v organizme celú radu procesov určených k vyriešeniu hroziaceho nebezpečenstva a opätovnému nastoleniu rovnováhy.

Pôsobenie stresorov je prostredníctvom signálov prenášané do centrálneho systému prostredníctvom senzorických, somatosenzitívnych, viscerosenzitívnych a humorálnych dráh. „Kognitívne spracovávané podnety (anticipačné stresory) pôsobia prostredníctvom zrakových, sluchových, chuťových, čuchových alebo statokinetických receptorov. Sú spracované napr. v senzorických, prefrontálnych, orbitofrontálnych oblastiach mozgovej kôry a v amygdale. Fyzikálne a metabolické podnety pôsobia prostredníctvom aktivácie somatických a viscerálnych nervových zakončení. Signály vznikajúce aktiváciou senzitívnych

nervových zakončení sú vedené do oblastí mozgového kmeňa (napr. nucleus tractus solitarii, locus coeruleus) a následne do vyšších centier (napr. hypotalamus, talamus a mozgová kôra). Senzorické cirkumventrikulárne orgány (organum vasculosum laminae terminalis; organum subfornicale; area postrema) umožňujú monitorovať zmeny v chemickom zložení plazmy.“ (Mravec, 2011, s. 39).

V tele priebeh stresovej reakcie riadi autonómny nervový systém (ANS), ktorý je súčasťou nervového systému. ANS je priamo účastný všetkých stresových reakcií pretože riadi činnosť vnútorných orgánov vôľou neovládaných: srdce, obličky, pečeň, pľúca... Človek niečo zažíva a ANS na základe dopytu činnosť uspôsobuje. V rámci autonómneho nervového systému sa nachádzajú 2 podsystémy:

Sympatikoneurálny a adrenomeduálna hormonálna zložka je jedným zo základných systémov, ktoré zabezpečujú reakciu na stresory. V našom výskume meriame pôsobenie sympatikoneurálneho systému (SNS), ktorý pri pôsobení stresora zabezpečuje vyplavenie kaecholamínu a uvoľnenie adrenalínu a v menšej miere aj noradrenalínu. Katecholamín zvýši aktivitu kardiovaskulárneho a respiračného systému (Young, Landsberg, 1998). Aktiváciou SNS dochádza k celej rade hormonálnych a metabolických procesov nabudzujúcich organizmus s cieľom vyriešiť stresovú situáciu. Sympatikový nervový systém zabezpečuje adekvátne zvýšenie aktivity kostrového svalstva a metabolizmu. Spôsobuje, že jednotlivec s pripravuje na „boj alebo útek“. Jedná sa o stav pohotovosti a tvorby energie (Honzák et.al, 2005).

Parasympatikový nerovový systém (PNS) je druhým podsystémom autonómneho nervového systému (ANS). Zodpovedá za návrat organizmu do rovnovážneho stavu. Podieľa sa na aktivácii procesov, ktoré sú spojené s rastom a obnovou organizmu (Porges, 1995). Je zodpovedný za relaxáciu a regeneráciu organizmu. Na určitú dávku stresu je telo pripravené a adaptívne. Problémom je ak je tých situácií mnoho. Vtedy dochádza k vyčerpaniu energetických zásob (dlhodobo je aktivovaný častejšie SNS ako PNS), pretrvávajú stavy napätia bez adekvátnej regenerácie. Vyčerpanosť organizmu spôsobuje, že spätný chod PNS nie je dostatočný, každá ďalšia stresová situácia je výraznejšia. V dôsledku dlhodobého stresu dochádza k preťažovaniu a nadmernému opotrebeniu systémov organizmu. Pri extrémnom nápore stresu je prietok krvi 5x vyšší ako v pokojovom režime, v stave napätia pretrváva zvýšená aktivácia kardiovaskulárneho systému (prejavuje sa zvýšeným tlakom a tepom). Preťažovanie vedie k nadmernému opotrebeniu. Rovnováha v ANS je nevyhnutá pre človeka v krátkodobom aj dlhodobom horizonte (Honzák et.al., 2005).

Unikátnou možnosťou ako overiť činnosť ANS je HRV analýza.

HRV analýza je neinvazívne vyšetrenie, ktoré dokáže odhaliť mieru prežívaného stresu a schopnosť relaxácie, regenerácie organizmu prostredníctvom zhodnotenia aktivácie sympatického a parasympatického podsystému autonómneho nervového systému. Dlhodobá nedostatočná aktivácia PNS vedie k vyčerpaniu organizmu, je významných rizikovým faktorom pri vzniku kardiovaskulárnych ochorení, obezity, diabetesu, gastro problémov, psychických ochorení, imunitných ochorení.

2. Výskumné otázky

Vzhľadom na výskumný dizajn sme zvolili nasledujúce výskumné otázky:

1. Aká je celková miera vyváženosti autonómnej nervovej sústavy a jej zložiek v celej vzorke respondentov a vzhľadom na miesto bydliska, vek a pohlavie?
2. Aká je celková miera stresovej odolnosti v celej vzorke respondentov a vzhľadom na miesto bydliska, vek a pohlavie?

3. Metódy a metodiky

Participanti: V rámci našich meraní sa výskumu zúčastnilo 881 participantov z 24 okresov Slovenska. V nasledujúcej tabuľke prinášame percentuálne rozloženie respondentov v jednotlivých okresoch.

Tabuľka 1 Rozloženie participantov vzhľadom na ich miesto bydliska

okres	frekvencia	%	okres	frekvencia	%
Myjava	44	5,0	Čadca	38	4,3
Dubnica nad Váhom	37	4,2	Prešov	41	4,7
Považská Bystrica	36	4,1	Humenné	35	4,0
Holíč	45	5,1	Poprad	32	3,6
Šamorín	35	4,0	Zvolen	30	3,4
Sereď	38	4,3	Lučenec	42	4,8
Malacky	43	4,9	Banská Bystrica	33	3,7
Senec	38	4,3	Šaľa	37	4,2
Pezinok	41	4,7	Levice	31	3,5
Ružomberok	40	4,5	Nové Zámky	30	3,4
Námestovo	40	4,5	Krompachy	37	4,2
Rožňava	21	2,4	Michalovce	37	4,2
			Total	881	100,0

Z hľadiska rozloženia vzorky podľa pohlavia sa nášho výskumu zúčastnilo 679 (77,1%) žien a 202 (22,9%) mužov. Z hľadiska veku najmladší respondent mal v čase testovania 14 a najstarší 91 rokov, priemerný vek vo vzorke bol 49,88 roka (SD=16,186). Najpočetnejšia kategória respondentov v našom výskume bola kategória medzi 30 – 49 rokov a 50 – 64 rokov – čo bolo 69% z celkového počtu zúčastnených.

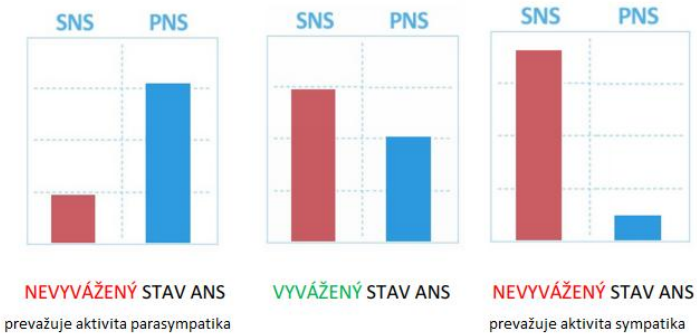
4. Design

U zúčastnených respondentov sme sa zamerali na meranie nasledujúcich premenných: stres skóre, priemerný tep, počet arytmií, index únavy, telesný a psychický stres a stresovú odolnosť. Ani jedna z testovaných osôb neužívala psychofarmaká a nemala ani kardiostimulátor. Testovanie prebiehalo počas Festivalu zdravia v mestách v celej Slovenskej republike.

5. Meracie nástroje

Vyšetrenie participantov prebiehalo v 24 mestách naprieč celým Slovenskom. Merania boli realizované 8 hodín denne na námestiach jednotlivých miest. Zo vzorky boli vylúčené osoby, ktoré užívali akékoľvek psychofarmaká (antidepresíva, antipsychotiká,...). Výber bol náhodný, do vzorky boli zaradení ľudia na základe vlastného záujmu o meranie. Vyšetrenie prebiehalo nasledovne. Participant bol usadený, inštruovaný aby pokojne sedel. Pred analýzou sme zisťovali, či nepožil v krátkodobom horizonte nejaké povzbudzujúce látky alebo nápoje. Celé vyšetrenie trvá približne 10 minút. Po zodpovedaní otázok, participantom bol na ukazovák ľavej ruky nasadený snímač. V priebehu 3 minút sme sledovali merané parametre participanta, interpretácia výsledkov približne ďalších 7 minút.

Nasledujúce grafické znázornenie ukazuje na stav rovnováhy medzi sympatikovým a parasympatikovým nervovým systémom. Ideálny pomer je 60:40, 50:50, 40:60 (%).



Obr. 1 Znázornenie rovnováhy medzi SNS a PNS (zdroj http://www.inbody.cz/manual_max pulse-ans.pdf)

6. Štatistická analýza

Na vyhodnocovanie získaných údajov sme využili štatistický program SPSS 21.

7. Závery

Základná analýza

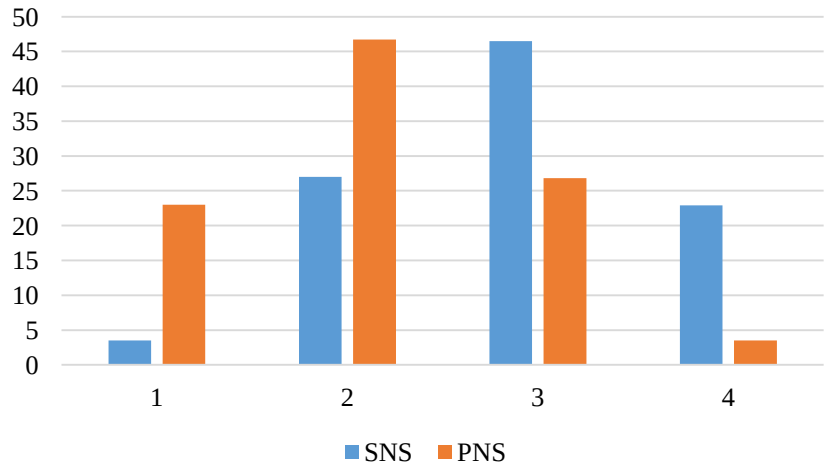
Aká je celková miera vyváženosti autonómnej nervovej sústavy a jej zložiek v celej vzorke respondentov a vzhľadom na miesto bydliska a pohlavie?

V nasledujúcich tabuľkách a obrázkoch prinášame porovnanie vyváženosti PNS a SNS v celej vzorke a vzhľadom na miesto bydliska, vek a pohlavie.

Tabuľka 2 Frekvencia a percentuálne zobrazenie dosiahnutého stupňa SNS a PNS v celej vzorke

	Frekvencia SNS	% SNS	Frekvencia PNS	% PNS
1	31	3,5	203	23,0
2	238	27,0	411	46,7
3	410	46,5	236	26,8
4	202	22,9	31	3,5
Total	881	100,0	881	100,0

Porovnanie medzi SNS a PNS prinášame v nasledujúcom obrázku.



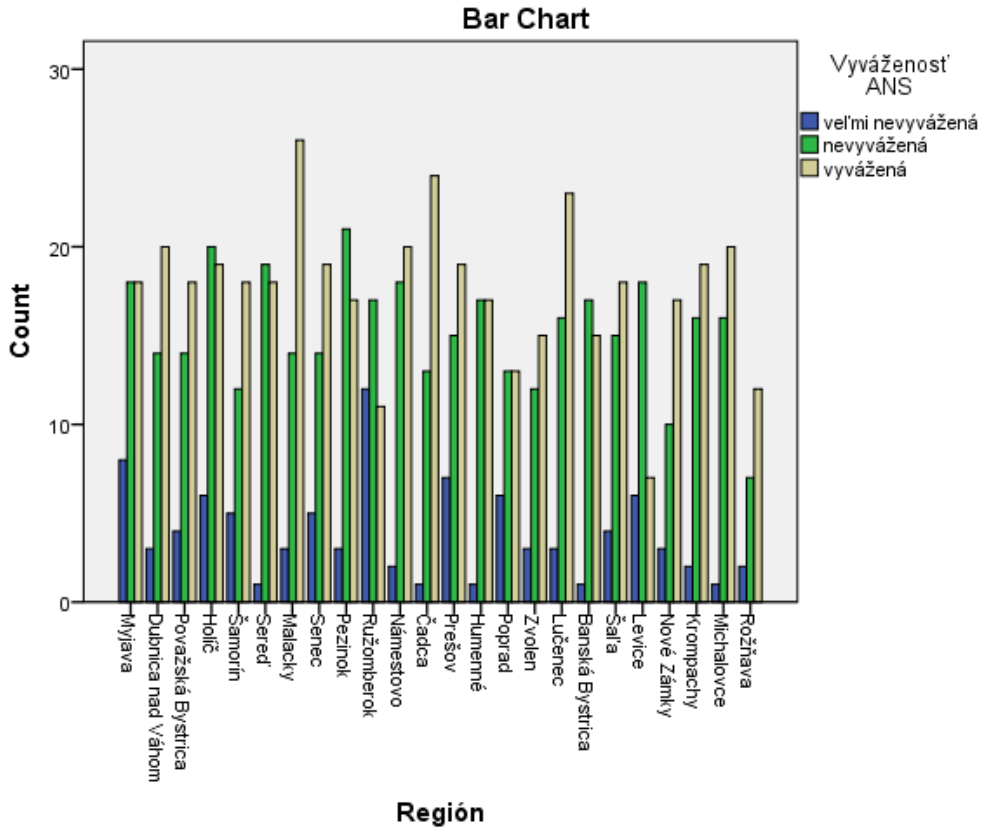
Obr. 2 Percentuálne zastúpenie respondentov celej vzorky.

Na základe predchádzajúcej tabuľky a obrázku môžeme vidieť, že 3,5% (SNS) a 23% (PNS) respondentov vykazovalo výrazne nevyvážený stav ANS s prevahou parasympatika. Podobný stav je aj na opačnej strane spektra – kde je 3,5% vykazovalo zníženú mieru parasympatika v porovnaní s 22,9% respondentov s prevahou sympatika.
Na základe porovnanie oboch zložiek autonómneho nervového systému bola vypočítaná vyváženosť ANS v celej vzorke.

Tabuľka 3 Vyváženosť ANS v celej vzorke

	Frekvencia	%
veľmi nevyvážená	92	10,4
nevyvážená	366	41,5
vyvážená	423	48,0
Total	881	100,0

Ako môžeme vidieť v tabuľke 3 v našej vzorke 10,4% respondentov vykazovalo veľmi nevyvážený stav autonómneho nervového systému a 41,5% nevyvážený. Spolu viac ako polovica skúmaných respondentov vykazuje nevyváženosť nervovej sústavy – čo je alarmujúci stav.
Ako ďalšie sme sledovali mieru vyváženosti ANS vzhľadom na miesto bydliska. Prehľad vzhľadom na početnosť vzorky prinášame na obrázku.



Obr. 3 Porovnanie vyváženosti ANS vzhľadom na miesto bydliska respondentov.

Ako môžeme vidieť na obrázku č. 3 najvyváženejšie sa javili respondenti z okresov Malacky, Čadca a Lučenec. Veľmi nevyváženú ANS vykazovali respondenti okresu Ružomberok,

Myjava, Prešov, Poprad a Levice. Nevyváženú ANS vykazovali v zvýšenej miere respondenti takmer všetkých okresov.

Tabuľka 4 Porovnanie vyrovnanosti ANS vzhľadom na pohlavie

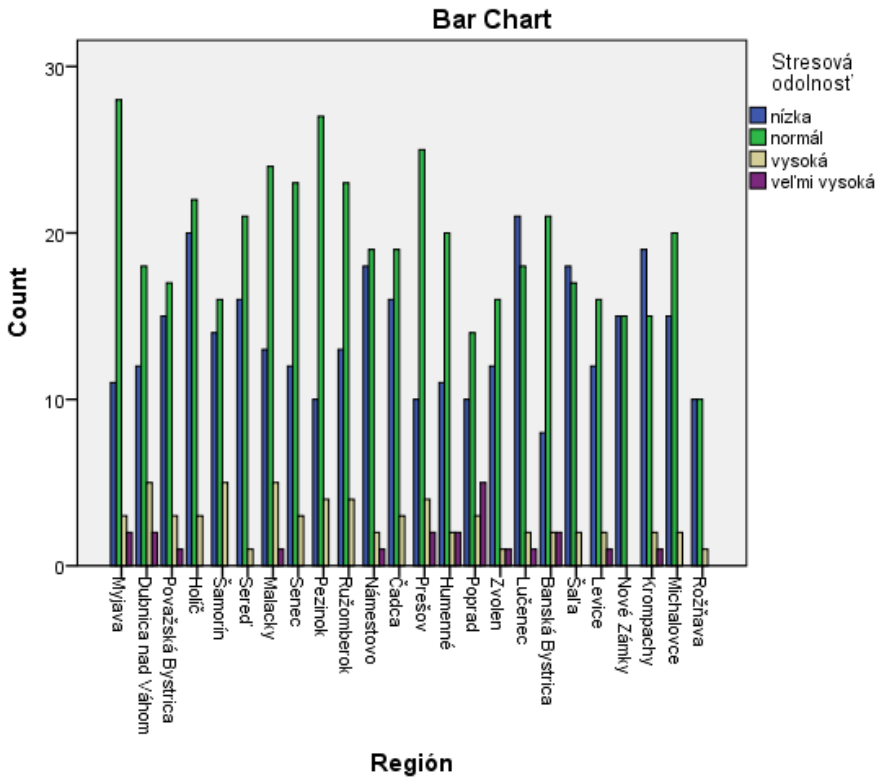
		Vyváženosť ANS		
		veľmi nevyvážená	nevyvážená	vyvážená
žena	Count	67	283	329
	% within Pohlavie	9,9%	41,7%	48,5%
	% within Vyváženosť ANS	72,8%	77,3%	77,8%
muž	Count	25	83	94
	% within Pohlavie	12,4%	41,1%	46,5%
	% within Vyváženosť ANS	27,2%	22,7%	22,2%
	Count	92	366	423
	% within Pohlavie	10,4%	41,5%	48,0%
	% within Vyváženosť ANS	100,0%	100,0%	100,0%

Ako môžeme vidieť v tabuľke ak porovnávame vyváženosť ANS medzi mužmi a ženami, zisťujeme, že muži vykazujú vyššiu mieru veľmi nevyváženej ANS.
V prípade zhodnotenia a porovnania rozloženia zložiek PNS a SNS sme zistili, že nevyváženosť ANS s prevahou sympatika vykazujú vo vyššej miere muži (SNS 32,2%, PNS 2,5%) ako ženy (SNS 10,2%, PNS 3.8%). Rovnako je to aj v prípade nevyváženosti s prevahou parasympatika – muži SNS 2,5%, PNS 32,2%; ženy SNS 3,8%, PNS 20,3%.
Aká je celková miera stresovej odolnosti v celej vzorke respondentov a vzhľadom na miesto bydliska a pohlavie?
V nasledujúcej tabuľke prinášame prehľad miery stresovej odolnosti, ako bola nameraná v celej vzorke respondentov.

Tabuľka 5 Stresová odolnosť v celej vzorke

	Frekvencia	%
nízka	331	37,6
normál	464	52,7
vysoká	64	7,3
veľmi vysoká	22	2,5
Total	881	100,0

Ako môžeme vidieť až 37,6% respondentov vykazovalo nízku mieru stresovej odolnosti. Ak si tieto výsledky porovnáme vzhľadom na pohlavie a miesto bydliska respondentov zistíme, že najnižšiu mieru stresovej odolnosti najviac vykazujú respondenti z okresov Krompachy (51,4%) Lučenec a Nové Zámky (50%), Šaľa (48,6%), Holíč (44,4%), Šamorín, Michalovce a Zvolen (40%), Sereď a Čadca (42,1%), Námestovo (45%) a Rožňava (37,6%).



Obr. 5 Porovnanie miery odolnosti voči stresu vzhľadom na bydlisko

Porovnanie vzhľadom na pohlavie prinášame v nasledujúcej tabuľke.

Tabuľka 6 Porovnanie miery stresovej odolnosti vzhľadom na pohlavie respondentov

		Stresová odolnosť			
		nízka	normál	vysoká	veľmi vysoká
žena	Count	260	352	49	18
	% within Pohlavie	38,3%	51,8%	7,2%	2,7%
	% within Stresová odolnosť	78,5%	75,9%	76,6%	81,8%
muž	Count	71	112	15	4
	% within Pohlavie	35,1%	55,4%	7,4%	2,0%
	% within Stresová odolnosť	21,5%	24,1%	23,4%	18,2%

Ako môžeme vidieť tak až percento respondentov dosahujúcich nízku mieru stresovej odolnosti je u mužov a žien približne rovnaké.

8. Diskusia

Našej štúdie sa zúčastnilo 881 participantov z celého Slovenska. Náhodný výber, ktorý bol použitý pri zbere dát zapríčinil nerovnomerné rozloženie pohlaví v našej vzorke. Merania boli realizované prostredníctvom prístroja HRV. Z meraných ukazovateľov sme si pre našu štúdiu vybrali porovnanie vyváženosti autonómneho nervového systému a miery stresovej odolnosti. Autonómny nervový systém nie je ovládaný našou vôľou a ovplyvňuje rôzne fyziologické modalitu organizmu: srdcovú činnosť, respiráciu, potenie, funkciu endokrinných žliaz, kontrakcie a relaxáciu hladkých svalov apod. ANS priamo ovplyvňuje variabilitu srdcovej frekvencie, ktorá býva súčasťou reakcie organizmu na stres (Garakani et al., 2009). Nízka variabilita srdcovej činnosti môže viesť ku kardiovaskulárnym problémom a dlhodobým následkom býva hypertenzia a infarkt (Yeragani et al., 1993; Gorman et al., 2000).

Sympatikus začína v mieche a vlákna prebiehajú pozdĺž miechových nervov, medzi segmentami chrbtových stavcov T – 1 a L – 2 1 (Noback et al., 2005). Vlákna pokračujú do sympatikovej reťaze pozdĺž miechy a ďalej do efektorových orgánov, ktoré sú ovplyvnené sympatikom (Barrett et al., 2010). Parasympatikus je spájaný s X. hlavovým nervom – nervus vagus (blúdivý nerv). Až 75 % nervových vláken parasympatika je uložených v n. vagus a inervujú celú hrudnú a abdominálnu časť ľudského tela. Zvyšok vlákien prechádza cez III., VII. a IX. hlavový nerv. Časť vlákien vychádza z dolných, sakrálnych oblastí miechy. Z X. hlavového nervu pokračujú vlákna do srdca a do gastrointestinálneho traktu a oblasti obličiek. Z ďalších hlavových nervov vedú vlákna do oka, nosných a slinných žliaz a do príušnej slinnej žľazy (glandula parotis) (Guyton, Hall, 2006).

V našej štúdii sme sa zamerali najme na variabilitu frekvencie srdca. Sympatikus zrýchľuje srdcovú frekvenciu (tachykardia), parasympatikus srdcovú frekvenciu spomaľuje (bradykardia). Vzájomná súčinnosť oboch, tzn. flexibilné zrýchľovanie a spomaľovanie srdcovej frekvencie, vedie k vzniku variability srdcovej frekvencie, ktorá nie je u zdravých jednotlivcov konštantná, ale dochádza k jej zmenám (Tak et al., 2009). Čím je vyššia variabilita frekvencie srdca (rozdiel medzi maximálnou a minimálnou frekvenciou), tým je organizmus lepšie adaptovaný na zmeny a lepšie zvláda stres (Carmilla et al., 2009). Je tiež znakom dobrej fyzickej kondície a vyváženosti zložiek ANS. Rôzne druhy narušenia napr. kardiovaskulárne ochorenia, zlá fyzická kondícia, duševné ochorenia narušujú, resp. znižujú variabilitu frekvencie srdca (Shioiri et al., 2005; Xhyhery et al., 2012) a vedú k prehĺbeniu ochorenia kardiovaskulárneho systému, srdce sa preťažuje a dochádza aj k dysregulácií autonómneho nervového systému. Sympatikus aj parasympatikus ovplyvňujú činnosť srdca. Známkou primeranej regulácie ANS je, že oba systémy pracujú rovnomerne, t.j. ani sympatikus ani parasympatikus by nemal dlhodobo dominovať. Udržiava sa tým homeostatický stav a vysoká variabilita frekvencie srdca (Robertson et al., 2012).

Ak výrazne prevažuje sympatický nervový systém – znamená to, že organizmus je v stresovom stave a je väčší predpoklad rozvíjania inzulínovej rezistencie, cukrovky 2. typu a ochorenia kardiovaskulárneho systému – hypertenzia, ateroskleróza, infarkt myokardu, cievna mozgová príhoda. Ak výrazne prevažuje parasympatický nervový systém je zvýšené riziko depresie a letargie. Organizmus je v anabolickom stave, a hromadenie zásob predstavuje predpoklad vzniku nadváhy a obezity (http://www.inbody.cz/manual_maxpulse-ans.pdf).

Aktivita ANS vychádza z celkového spektrálneho výkonu variability srdečnej frekvencie. Pokiaľ je nižšia, znamená to zníženú schopnosť organizmu vysporiadať sa so zmenami v neustále meniacom sa prostredí.

Druhým faktorom, ktorým sme sa v našej štúdii zaoberali bola stresová odolnosť. Jedná sa o faktor, ktorý zobrazuje ako človek vníma a prežíva pôsobiace stresové situácie. Čím je vyšší, tým je jeho adaptabilita, schopnosť vysporiadať sa lepšia. Za týmto faktorom sú 3 podmienky:

- genetická predispozícia – možná vyššia vzrušivosť;
- kondícia organizmu. Medzi indexom únavy a stresovou odolnosťou je priamoúmerný vzťah. Čím je organizmus v horšej kondícií – vyčerpaný, tým je stresová odolnosť nižšia.
- Postoje. Ako vnímame situácie, kt. čelíme. V tomto nám najlepšie vychádzajú cholerici. Môj postreh – ak ho niečo rozruší okamžite to dá zo seba von. Najhoršie nám vychádzajú perfekcionisti, pedanti. Neustály tlak na seba, túžba byť 100%tný vo všetkom, čo robí.

V našej výskumnej vzorke sme zistili, že viac ako 50% respondentov (51,9%) vykazovalo nevyváženosť autonómnej nervovej sústavy a to aj s prevahou sympatika aj parasympatika. Môžeme teda povedať, že takmer tretina našich respondentov je ohrozená vznikom chorôb spôsobených prevahou určitého typu nervového systému. Keď sme sa zamerali na porovnanie

skupín mužov a žien zistili sme, že v mierne viac sú ohrození muži, pretože sa percentuálne vyskytovali viac na oboch koncoch spektra. Z hľadiska miesta bydliska sme zistili, že vyššiu mieru nevyváženosti ANS vykazovali respondenti z okresov Ružomberok, Myjava, Prešov, Poprad a Levice. Nevyváženú ANS vykazovali v zvýšenej miere respondenti takmer všetkých okresov.
Výsledky, ktoré sme zistili, sú alarmujúce a je potrebné zamerať sa na osvetu a zvyšovanie povedomia jednotlivcov ohľadom prevencie.
V položke stresovej odolnosti sme zistili, že v celej vzorke vykazovalo až 37,6% respondentov nízku mieru stresovej odolnosti. Ak to prepojíme s množstvom respondentov, ktorí súčasne vykazujú nevyváženosť autonómnej nervovej sústavy a nedostatok zdrojov na vyrovnávanie sa so stresom až tretine respondentov hrozia vážne zdravotné problémy. Z hľadiska porovnania miery stresovej odolnosti vzhľadom na miesto bydliska najnižšiu mieru stresovej odolnosti vykazujú respondenti z okresov Krompachy (51,4%) Lučenec a Nové Zámky (50%), Šaľa (48,6%), Holíč (44,4%), Šamorín, Michalovce a Zvolen (40%), Sereď a Čadca (42,1%), Námestovo (45%) a Rožňava (37,6%).
Vzhľadom na pohlavie je miera stresovej odolnosti bola rovnaká aj u mužov aj u žien.

9. Záver, limitácie výskumu

Naša štúdia prináša len prehľadné – percentuálne - spracovanie ukazovateľov zisťujúcich vyváženosť ANS a mieru stresovej odolnosti u respondentov. Získané výsledky mapujú a popisujú situáciu na Slovensku.
Limity výskumu:

- nereprezentatívnosť vzorky by sa mohla odraziť vo výsledkoch meraní;
- nakoľko sa jednalo o dobrovoľníkov, ktorí sa sami prihlásili výsledky mohli byť skreslené aj tým, že záujem prejavili najmä ľudia, ktorí stres pociťovali;
- limitom výskumu bolo tiež, že sme sa nezaoberali analýzou dôvodov prežívaného stresu u respondentov.

Bibliografické zdroje

1. BARRETT, K. E., BARMAN, S. M., BOITANO, S., BROOKS, H.L. Ganong's Review Of Medical Physiology 23th Ed. McGraw – Hill Press, New York 2010.
2. CANNON, W.B. Organization for physiological homeostasis. Physiol Rev 1929; 9: 399-431. CANNON, W.B. The Wisdom of the Body. New York: W. W. Norton and Company, 1963; 340 s.
3. CARMILLA, M., LICHT, M., De GEUS, J.C.E., et al.:Association between Anxiety Disorders and Heart Rate Variability in The Netherlands Study of Depression and Anxiety (NESDA). Psychosomatic Medicine 2009; 71: 508 – 518.
4. GARAKANI, A., MARTINEZ, J.M., AARONSON, C.J., VOUSTIANIOUK, A., KAUFMANN, H., GORMAN, J.M. Effect of Medication and Psychotherapy on Heart Rate Variability in Panic Disorder. Depression and Anxiety 2009; 26: 251 – 258.
5. GORMAN, J.M., SLOAN, R.P. Heart rate variability in depressive and anxiety disorders. Am Heart J 2000; 49: 29 – 35.
6. GOLDSTEIN, D.S. Adrenal responses to stress. Cell Mol Neurobiol 2010; 30: 1433-40.
7. GUYTON, A.C., HALL, J.E. Textbook of Medical Physiology 11th Ed. Elsevier Saunders, Pennsylvania 2006.
8. HONZÁK, R. et al. Úzkostný pacient. Praha: Galén, 2005.
9. MRAVEC, B. Stres a adaptácia. Bratislava: Faber. 2011.

10. NOBACK, C.R., RUGGIERO, D.A., DEMAREST, R.J., STROMINGER, N.L. The Human Nervous System: Structure and Function, 6th Edition. Humana Press, New Jersey 2005.
11. POCOCK, G., RICHARDS, C.D. Human Physiology - The Basis of Medicine. 2nd edition. Oxford: Oxford University Press, 2004; 734 s.
12. PORGES, S.W. Cardiac vagal tone: a physiological index of stress. Neurosci Biobehav Rev 1995; 19: 225-33.
13. ROBERTSON, D. (Ed): Primer on the autonomic nervous system 3rd Ed. Academic Press, London 2012.
14. SELYE H. The Stress of Life. New York: McGraw-Hill, 1984; 516 s.
15. SELYE H. A syndrome produced by diverse nocuous agents. 1936. J Neuropsychiatry Clin Neurosci 1998; 10: 230-1
16. SHIOIRI, T., MARUYAJAMA – KOJIMA, M., HOSOKI, T., et al.: Dysfunctional baroreflex regulation of sympathetic nerve activity in remitted patients with panic disorder. Eur Arch Psychiatry Clin Neurosci 2005; 255: 293 – 298.
17. SCHULKIN J. Social allostasis: anticipatory regulation of the internal milieu. Frontiers in Evolutionary Neuroscience 2011; 2: 1-15.
18. TAK, L.M., RIESE, H., de BOCK, G.H., et al. As good as it gets? A meta – analysis and systematic review of methodological quality of heart rate variability studies in functional somatic disorders. Biol Psych 2009; 82(2): 101 – 10.
19. XHYHERI, B., MANFRINI, O., MAZZOLINI, M., et al.: Heart Rate Variability Today. Prog Cardiovasc Dis 2012; 55: 321 – 331.
20. YERAGANI, J.K., POHL, R., BERGER, R., et al.: Decreased heart rate variability in panic disorder patients: a study of power - spectral analysis of heart rate. Psychiatry Res 1993; 46: 89 – 103
21. YOUNG, J.B., LANDSBERG, L. Catecholamines and the adrenal medulla. In: Wilson, J.D., Foster, D. W., Kronenberg, H. M. (Eds). Williams Textbook of Endocrinology. 9th edition. Philadelphia: W.B. Saunders Company, 1998; s. 665-716.

Kontakt

PhDr. Andrea Baranovská PhD.
Katedra psychológie, Filozofická fakulta Univerzita sv. Cyrila a Metoda v Trnave
andrea.baranovska@ucm.sk

PhDr. Karol Kováč PhD.
Katedra psychológie, Filozofická fakulta Univerzita sv. Cyrila a Metoda v Trnave
karol.kovac@ucm.sk

STRES A SYNDRÓM VYHORENIA V UČITEĽSKEJ PROFESII

STRESS AND BURNOUT SYNDROME IN TEACHERS PROFESSIONS

Andrea Baranovská, Dominika Doktorová, Jana Hubinská

Abstrakt

Cieľom predloženej štúdie bolo zistiť, či existujú štatisticky významné rozdiely v prežívaní stresu a syndrómom vyhorenia v závislosti od skúmaného typu školy ako aj od veku učiteľov. Na zisťovanie rozdielov v úrovni syndrómu vyhorenia sme použili dotazníky Burnout measure (BM) a Maslach burnout inventory (MBI) a metódou Perceived Stress Scale sme zisťovali závažnosť stresových situácií. Skúmaná vzorka pozostávala zo 121 respondentov vo vekovom rozmedzí 27-60 rokov. Vo výsledkoch sme nezaznamenali štatisticky významné rozdiely v úrovni burnoutu a stresu v závislosti od typu školy, zaznamenali sme signifikantne významné vzťahy medzi vekom a syndrómom vyhorenia a vekom a stresom, ďalej bola zaznamenaná štatisticky významná spojitosť medzi stresom a syndrómom vyhorenia.

***Kľúčové slová**: stres, burnout, učitelia, školské prostredie*

Abstract

The aim of the present article was to find out whether there are statistically significant differences in the survival of stress and burnout syndrome depending on the type of school studied and the age of the teachers. We used the Burnout Measure (BM) and Maslach Burnout Inventory (MBI) and Perceived Stress Scale to determine the severity of stress situations. The survey sample consisted of 121 respondents aged 27-60. We did not report statistically significant differences in the level of burnout and stress depending on the type of school, we noticed significant relationships between age and burnout syndrome and age and stress, and there was a statistically significant relationship between stress and burnout syndrome.

***Key words:** stress, burnout, teachers, school environmnt*

1 ÚVOD

Burnout syndróm vyvolávajú záporné a závažné okolnosti obzvlášť pôsobenie chronickej pracovnej záťaže (Kolibárová, 2011). Miškolcová (2004) skúmala vplyv burnout syndrómu vo vzťahu ku kvalite života učiteľov a poukázala na to, že prežívanie pocitov subjektívnej spokojnosti vplýva na mieru subjektívne prežívanej pracovnej záťaže. Vzhľadom na vážnosť pôsobenia syndrómu vyhorenia a jeho vplyvu na zdravie jedinca, ktoré sa týka fyzickej, ale aj psychickej stránky považujeme za dôležité objasniť tento komplexný fenomén, ktorý sa za posledné desaťročia stával neodmysliteľnou súčasťou života mnohých ľudí, ale hlavne tých, ktorých práca si vyžaduje neustály kontakt s ľuďmi, ako sú napr. učitelia (Drotárová, 2006, Kallwass, 2007). Medzi burnoutom a stresom existuje štatisticky významná spojitosť a veľmi často sa spája stres s frustráciou, ktorý býva definovaný ako ekvivalent dlhodobého extrémneho stavu frustrácie (Musil, 2010). Vek je jedným z hlavných determinantov prežívania a spracovávania stresu a následného indukovania syndrómu vyhorenia (Baranovská, Petlák, 2016). Hučková (2011) uvádza, že úroveň stresu a syndróm vyhorenia u učiteľov závisí od štýlu vedenia školy. Výskum realizovala na vzorke 202 učiteľov rôzneho veku. Stres a syndróm vyhorenia zisťovala pomocou dotazníka MBI a dotazníka od autorov Hemminga a Kellera. Výsledkami výskumu poukazuje na stres a syndróm vyhorenia, ktoré sa prejavujú hlavne v telesnej a citovej rovine. Pomerne vysokú hodnotu syndrómu vyhorenia

dosahujú učitelia na základe dotazníka MBI v rovine emočného vyčerpanie (AM = 25,58 z celkových 63). Naopak nízku úroveň syndrómu vyhorenia dosahujú v oblasti osobného uspokojenia. Štýl vedenia školy najviac vplýva na vznik prvej oblasti syndrómu vyhorenia - emočnej vyčerpanosti. Borg a Riding (1993) uskutočnili výskum stresu u učiteľov zameraný na dimenzie kognitívnych štýlov. Vo všeobecnosti sa koncepty kognitívnych štýlov zameriavajú na individuálne rozdiely v procesoch, na základe, ktorých sa získava poznanie (pamäť, vnímanie, myslenie, percepcia, riešenie problému, obrazotvornosť, rozhodovanie). Do výskumu bolo zapojených 212 pracovníkov stredných škôl a zistili, že stres im najviac spôsobujú: veľké triedy, hlučnosť detí, zlý vzťah detí k práci, nedostatok času pre individuálne venovanie sa žiakovi, zodpovednosť, ale aj nedostatok poznatkov a zručností ako dobre učiť. Na základe výskumu Borg a Ridding určili štyri základné oblasti, ktoré spôsobujú učiteľom stres. Jedná sa o: neslušné a neprimerané správanie žiakov, časové nároky, podmienky práce a vzájomný vzťah učiteľov na pracovisku. Autori výskumu uvádzajú spojitosť medzi kognitívnym štýlom a vekom učiteľov. U verbalizátorov uvádzajú vyšší stres ako u imaginátoriek vo veku nižšom ako 40 rokov, ale nad 40 rokov už je skóre opačné. Podľa záverov výskumu v povolaní učiteľa pociťujú muži vyšší stres než ženy.
Cieľom nášho výskumu bolo zistiť, či existujú štatisticky významné rozdiely v prežívaní stresu a syndróme vyhorenia v závislosti od typu školy a od veku učiteľov, či existuje štatisticky významná spojitosť medzi vekom učiteľov a mierou prežívaného stresu a syndrómu vyhorenia.
Vytvorili sme si 4 výskumné otázky a na základe zistení odborníkov sme stanovili jednu hypotézu (Kebza a Šolcová, 2003, Kohoutek, Řehulka, 2011, Hučková, 2011, Kolinárová, 2012, Kolibarová, 2011):
VO1: Existujú štatisticky významné rozdiely v syndróme vyhorenia v závislosti od typu školy?
VO2: Existujú signifikatne významné rozdiely v prežívaní stresu v závislosti od typu školy?
VO3: Súvisí vek učiteľov s ich mierou vyhorenia a stresu?
VO4: Existuje štatisticky významný vzťah medzi mierou stresu a syndrómom vyhorenia?
H1: Medzi dotazníkmi zisťujúcimi syndróm vyhorenia existuje štatisticky významná spojitosť.

2. METÓDY

2.1 Výskumný súbor

Cieľovou skupinou nášho výskumu boli učitelia pracujúci na stredných školách - jednalo sa o zámerný výber. Zamerali sme sa na učiteľov pracujúcich na gymnáziách a odborných školách v Západoslovenskom kraji, ktorí boli porovnateľní z hľadiska úrovne škôl, platových podmienok a lokality. Do výskumu bolo celkovo zapojených 121 respondentov z toho 39 respondentov z osemročných gymnázií, 59 respondentov zo štvorročných gymnázií a 23 respondentov z odborných skôl. Participanti boli vo veku od 27 do 60 rokov, čo je relatívne rozsiahle, ale na základe zistení odborníkov (Baranovská, Petlák, 2016, Kebza, Šolcová, 2003, Baštecká, 2003) sa jedná o skupinu, ktorá najčastejšie podlieha stresu a syndrómu vyhorenia. Zber dát bol realizovaný v mesiacoch september a október.

2.2 Výskumná metóda

Za účelom dosiahnutia nami stanovených cieľov sme využili dotazníkovú metódu, ktorá umožňuje rýchlym spôsobom získať jednotlivé informácie.V úvode dotazníka boli uvedené otázky zamerané na respondenta a zisťovali informácie ako pohlavie, dĺžku praxe, typ školy, v ktorej respondent pracuje a jeho vek. Následne sme predkladali štandardizované dotazníky. Kvantitatívny výskum je založený na odpovediach cieľovej skupiny sme zvolili hlavne z hľadiska možnosti zovšeobecniť získané poznatky na skuúpinu učiteľov gymnázií.

Dotazníkmi Burnout measure (BM) a Maslach burnout inventory (MBI) sme zisťovali mieru syndrómu vyhorenia. Metódou Perceived Stress Scale sme zisťovali závažnosť stresových situácií, s ktorými sú učitelia konfrontovaní. Po predložení a podaní inštrukcie mali respondenti na vyplnenie 15 min.
Získané údaje sme vyhodnocovali podľa vyhodnocovacích hárkov daného dotazníka. Získané údaje sme si zaznamenali do tabuľky, ktorú sme vytvorili v programe Statistical Packageforthe Social Sciences – SPSS 20, kde sme vykonali potrebné úkony na získanie výsledkov, ktoré uvádzame v nasledujúcej kapitole.
Burnout measure (BM) - dotazník bol vytvorený autormi Pinesová a Aronson v roku 1980. Ide o druhú najčastejšie používanú techniku pri diagnostikovaní syndrómu vyhorenia. Dotazník je zostavený z 21 položiek. Tie sú následne posudzované na sedem bodovej hodnotiacej škále typu „Ako často“ s rozpätím hodnôt od „Nikdy“ (1) po „Vždy“ (7). BM dotazník zisťuje tri hlavné zážitkové zložky syndrómu vyhorenia:
pocit duševného vyčerpania
pocit telesného vyčerpania
pocit emočného vyčerpania
Dotazník sme vyhodnocovali podľa predpísaného spôsobu a získali sme výsledné skóre BQ. Spôsob získania výsledného skóre je popísaný v tabuľke.

Tabuľka č. 1 Burnout measure

	Hodnoty z položiek
Súčet A	1,2,4,5,7,8,9,10,11,12,13,14,15,16,17,18,21
Súčet B	3,6,19,20
Výpočet C	C = 32 – B
Výpočet D	D = A + C
Výsledné skóre BQ	BQ = D : 21

Na základe získaného skóre sme mohli určiť závažnosť vyhorenia u respondentov.
BQ < 2 – z hľadiska psychologického zdravia považujeme tento výsledok za dobrý.
2 < BQ < 3 – výsledok je ešte uspokojivý.
3 < BQ < 4 – pri takomto výsledku sa odporúča zamyslieť sa nad životným štýlom, pocitom zmysluplnosti života.
4 < BQ < 5 – z psychologického hľadiska môžeme poukázať na prítomnosti syndrómu psychického vyčerpania.
BQ > 5 – ak hodnota výsledného skóre je väčšia ako päť ide o alarmujúci stav a je potrebné sa obrátiť na psychológa alebo psychiatra.
Maslach Burnout Inventory (MBI) - dotazník zostavili autori Maslach a Jaskson v roku 1981. Je to jedna z najpoužívanejších metód určovania syndrómu vyhorenia. Dotazník tvorí 23 otázok, ktoré sú posudzované na sedembodovej škále s rozpätím hodnôt od „Nikdy“ (1) po „Vždy“ (7). Tento dotazník poukazuje na tri základné subškály kombinované tak, aby zahrnuli viac oblastí, preto tu neexistuje celkové skóre.
emocionálne vyčerpanie (EE) – citová únava, vyčerpanie.
osobné uspokojenie (PA) – zachytáva mieru pracovného výkonu, resp. efektívnosť pracovnej činnosti.
depersonalizácia (DP) – človek sa odpútava od ostatných a sťahuje sa do izolácie, strata schopnosti empatie a úcty k starším sa objavujú v pokročilejších štádiách (Baštecká, 2003, s. 139).
Každý z uvedených faktorov sa hodnotí na škále nízkeho, stredného a vysokého stupňa, podľa skórovania v dotazníku. Faktor osobnostného výkonu sa na rozdiel od emocionálneho

vyhorenia a depersonalizácie hodnotí opačným skórovaním. Po vyhodnotení je možné určiť intenzitu stupňa v opísaných faktoroch.

Tabuľka č. 2 Maslach Burnou Inventory

Stupeň emocionálneho vyčerpania EE		Stupeň osobného uspokojenia PA		Stupeň depersonalizácie DP	
stupeň	*hodnota*	*stupeň*	*hodnota*	*stupeň*	*hodnota*
nízky	0 – 16	vysoký	39 <	nízky	0 – 6
mierny	17 – 26*	mierny	38 – 32 *	mierny	7 – 12*
vysoký	27 < vyhorenie	nízky	31 – 0 vyhorenie	vysoký	13 < vyhorenie

*priemerná hodnota 19,0 *priemerná hodnota 36,6 *priemerná hodnota 6,6

Okrem jednotlivých faktorov a ich stupňov nás zaujímal aj "celkový syndróm vyhorenia", ktorý ale použitý dotazník nezisťuje. Z uvedeného dôvodu sme sa pokúsili o experimentálne určenie celkového syndrómu vyhorenia na základe výsledkov v jednotlivých faktoroch, z ktorých sa dotazník skladá. Vysvetlenie v bodovaní pri určovaní celkového syndrómu vyhorenia (CSV) určuje nasledovná tabuľka.

Tabuľka č.3 Maslach Burnou Inventory CSV

	EE	PA	DP
nízky stupeň	dosiahnutie tohto faktoru je ohodnotené bodom 1	dosiahnutie tohto faktoru je ohodnotené bodom 1	dosiahnutie tohto faktoru je ohodnotené bodom 1
stredný stupeň	dosiahnutie tohto faktoru je ohodnotené bodom 2	dosiahnutie tohto faktoru je ohodnotené bodom 2	dosiahnutie tohto faktoru je ohodnotené bodom 2
vysoký stupeň	dosiahnutie tohto faktoru je ohodnotené bodom 3	dosiahnutie tohto faktoru je ohodnotené bodom 3	dosiahnutie tohto faktoru je ohodnotené bodom 3

Perceived Stress Scale (PSS)- sme využili na meranie pocitov stresu, ktoré zahŕňajú pocity spojené s neschopnosťou predvídať a ovplyvniť situácie, preťaženie stresovými situáciami a stresovú odpoveď organizmu , sme použili PSS dotazník. Autorom dotazníka je Sheldon Cohen. Dotazník pozostáva z 10 otázok, ktoré zisťujú do akej miery sú situácie v živote človeka hodnotené ako stresujúce. Respondenti posudzovali mieru stresu na päťbodovej škále hodnôt od „Nikdy“ (0) po „Takmer stále“ (4).
Získané hodnoty v rozpätí 0 – 40 boli zaradené do štyroch skupín

Tabuľka č. 4 Perceived Stres Scale

Počet bodov	Skupina	Hodnotenie
0 – 8	I.	Jedinec dokáže zvládať stresové situácie bez problémov.
9 – 20	II.	V stresových situáciách jedinec ľahko podľahne panike, ktorá ovplyvní jeho rozhodovanie ale situáciu nakoniec dokáže zvládnuť.
21 – 30	III.	Pre jedinca sú stresové situácie vyčerpávajúce a ťažko ich dokáže zvládnuť.
31 – 40	IV.	Stresové situácie jedinca natoľko ovplyvňujú, že nie je schopný sa s nimi vyrovnať a ďalej pokračovať vo svojej práci.

3 VÝSLEDKY

Na spracovanie výskumných údajov sme použili špecializovaný štatistický počítačový program Statistical Packageforthe Social Sciences – SPSS 20. V prvom rade sme vypočítali sme priemerné hodnoty, štandardnú odchýlku, minimálne a maximálne hodnoty hrubých skóre distribuovaných dotazníkov.

Tabuľka č.5 Deskriptívna analýza – Prax, BM, MBI, PSS,

	N	Minimum	Maximum	Priemer	SD
Prax	121	1,0	40,0	15,8	9,75
BM	121	1,1	5,7	3,3	1,38
MBI EE	121	5,0	63,0	23,5	14,06
MBI PA	121	7,0	63,0	34,9	13,92
MBI DP	121	0,0	60,0	12,9	10,95
MBI CSV	121	3,0	9,0	5,9	2,06
PSS	121	0,0	37,0	16,5	10,75

Výskumnú otázku O1 sme formulovali nasledovne: *Existujú štatisticky významné rozdiely v syndróme vyhorenia v závislosti od typu školy?* Na základe tohto faktu, že sa v rámci nášho výskumného súboru nepotvrdilo normálne rozloženie sme použili neparametrické testovanie rozdielov medzi skupinami prostredníctvom Kruskal-Wallisovým testom. Na základe výsledkov môžeme konštatovať, že učitelia sa v miere syndrómu vyhorenia neodlišujú napriek tomu, že sa odlišujú v type školy (tab.6).

Tabuľka č.6 Kruskal-Wallisov test – BM, MBI, typ školy

	Škola	N	Priemerné poradie	χ^2	p
BM	8rGYM	39	65,17	1,256	0,534
	GYM	59	60,63		
	OŠ	23	54,89		
MBI_EE	8rGYM	39	66,44	1,741	0,415
	GYM	59	59,86		
	OŠ	23	54,72		
MBI_PA	8rGYM	39	65,42	2,088	0,352
	GYM	59	56,28		
	OŠ	23	65,61		
MBI_DP	8rGYM	39	57,94	0,585	0,746
	GYM	59	61,54		
	OŠ	23	64,80		
MBI_CSV	8rGYM	39	65,05	0,797	0,671
	GYM	59	59,02		
	OŠ	23	59,22		

Výskumnú otázku O2 sme formulovali nasledovne: *Existujú signifikatne významné rozdiely v prežívaní stresu v závislosti od typu školy?* Použili sme neparametrické testovanie rozdielov - Kruskal-Wallisov test. Môžeme teda konštatovať, že učitelia sa v miere stresu neodlišujú vzhľadom na typ školy (tab.7)

Tabuľka č.7 Kruskal-Wallisov test – PSS, typ školy

	Škola	N	Priemerné poradie	χ^2	p
PSS	8rGYM	39	60,92	0,047	0,977
	GYM	59	61,56		
	OŠ	23	59,70		

Ďalej sme formulovali výskumnú otázku O3: *Súvisí vek učiteľov s ich mierou vyhorenia a stresu?* Vzhľadom na nenormálne rozloženie distribúcie premenných sme použili neparametrickú Spearmanovu korelačnú analýzu. Výsledky poukazujú na silnú súvislosť (tab.4). Mohli by sme povedať, že čím sú učitelia starší, tým sa ich skóre v rámci stresu a syndrómu vyhorenia zvyšuje. V rámci faktoru osobného uspokojenia (MBI PA) sme zistili negatívny vzťah (ρ = -0,67; p = 0,000).

Tabuľka č.8 Spearmanova korelačná analýza – vek, syndróm vyhorenia, stres

		Vek
BM	Korelačný koeficient ρ	0,69**
	p	0,000
MBI EE	Korelačný koeficient ρ	0,55**
	p	0,000
MBI PA	Korelačný koeficient ρ	-0,67**
	p	0,000
MBI DP	Korelačný koeficient ρ	0,54**
	p	0,000
MBI CSV	Korelačný koeficient ρ	0,78**
	p	0,000
PSS	Korelačný koeficient ρ	0,72**
	p	0,000

**korelácia je významná na hladine 0,01 (dvojsmerná)

Posledná výskumná otázka O4 bola formulovaná takto: *Existuje štatisticky významný vzťah medzi mierou stresu a syndrómom vyhorenia?* Vzhľadom na nenormálne rozloženie distribúcie premenných sme použili opäť neparametrickú Spearmanovu korelačnú analýzu (tab.9). Na základe výsledkov môžeme povedať, že stres a syndróm vyhorenia spolu silno a pozitívne súvisia. Čím je vyššia miera stresu, tým je vyššie skóre v dotazníkoch merajúcich mieru syndrómu vyhorenia. Opäť sme identifikovali opozitnú polaritu vzťahu stresu a osobného uspokojenia (ρ = -0,70; p = 0,000). Čím vyššia je miera stresu, tým nižšia je efektivita práce a aj uspokojenie z nej.

Tabuľka č.9 Spearmanova korelačná analýza – syndróm vyhorenia, stres

		PSS
BM	Korelačný koeficient ρ	0,81**
	p	0,000
MBI EE	Korelačný koeficient ρ	0,64**
	p	0,000
MBI PA	Korelačný koeficient ρ	-0,70**
	p	0,000
MBI DP	Korelačný koeficient ρ	0,59**
	p	0,000
MBI CSV	Korelačný koeficient ρ	0,86**

	p	0,000

**korelácia je významná na hladine 0,01 (dvojsmerná)

Nakoniec sme derivovali hypotézu H1: Medzi dotazníkmi zisťujúcimi syndróm vyhorenia existuje štatisticky významná spojitosť. Postup testovania je zhodný s predchádzajúcimi. Na podklade výsledkov Spearmanovej korelačnej analýzy môžeme povedať, že nástroje spolu silno pozitívne súvisia (tab.10) s výnimkou osobného uspokojenia ($\rho = -0,65$; $p = 0,000$).

Tabuľaka č. 10 Spearmanova korelačná analýza – syndróm vyhorenia BM, syndróm vyhorenia MBI

		BM
MBI EE	Korelačný koeficient ρ	0,65**
	p	0,000
MBI PA	Korelačný koeficient ρ	-0,65**
	p	0,000
MBI DP	Korelačný koeficient ρ	0,63**
	p	0,000
MBI CSV	Korelačný koeficient ρ	0,86**
	p	0,000

**korelácia je významná na hladine 0,01 (dvojsmerná)

4 DISKUSIA

4.1 Interpretácia výsledkov

Na základe poznatkov môžeme konštatovať, že naše výskumné zistenia zodpovedajú zisteniam predošlých uskutočnených výskumov (Gajdošová, Lovášová 2014, Hučková 2011, Mišolcová 2004, Kolibárová 2012, Dan 1998. Kopřiva, 1997 a i). Gajdošová a Lovašová (2014) realizovali výskum, ktorý bol zameraný na syndróm vyhorenia v pomáhajúcich profesiách. Do výskumu boli zapojení sociálni pracovníci, hasiči, príslušníci Policajného zboru, zdravotné sestry a pedagogickí pracovníci. Na získanie údajov autorky použili dotazník MBI – Maslach Burnout Inventory, ktorého hlavnou úlohou je sledovanie syndrómu vyhorenia v troch oblastiach a to emocionálna exhauscia, depersonalizácia a znížený pracovný výkon. Z výsledkov výskumu vyplýva že pedagógovia spolu s Príslušníkmi policajného zboru a zdravotnými setrami sú mierne vyhorení vo všetkých troch faktoroch vyhorenia. Kolibárová (2012) vo svojom výskume, ktorý bol zameraný na syndróm vyhorenia v spojení s typom školy, pohlavím a vekom respondentov uvádza, že typ školy vplýva na výskyt stresu a syndrómu vyhorenia. Vo výskume dáva na prvé miesto vo výskyte stresu a syndrómu vyhorenia učiteľov gymnázií, druhým v poradí uvádza učiteľov základných škôl. Výsledky nášho výskumu sa s výskumom Kolibárovej (2012) nezhodujú pretože náš výskum nepoukázal významný vzťah medzi typom školy a výskytom stresu a syndrómu vyhorenia. Ich výskyt sa vo veľkej miere odzrkadľuje aj od štýlu vedenia školy a vzťahmi na pracovisku, tak ako to uvádza vo výskume Hučková (2011). Kde poukazuje na to, že jednou z hlavných príčin stresu a syndrómu vyhorenia je štýl vedenia školy, čo sa odzrkadľuje na vzniku symptómov v sociálnej a citovej rovine. Vzhľadom na výsledky nášho výskumu môžeme konštatovať, že sa nepreukázal významný vzťah medzi typom školy a stresom a burnoutom u učiteľov. Naše zistenie je možné interpretovať i tak, že na výberových školách študujú prevažne bezproblémoví žiaci a potreby učiteľov sú do dostatočnej miery napĺňané.

Predpokladali sme, že vek bude súvisieť s vznikom stresu a syndrómu vyhorenia. Tento výsledok je možné komparovať s výskumami, ktoré taktiež využili metódu MBI na zisťovanie syndrómu vyhorenia. Jedná sa napríklad o výskum Fialovej a Schneiderovej (1998), ktorý

poukazuje na to, že vek spôsobuje zvýšenie intenzity emočného vyčerpania. V našom súbore bola potvrdená štatisticky významná korelácia medzi vekom a emocionálnym vyčerpaním (0, 55). Výskum Hučkovej (2011) taktiež poukazuje na prítomnosť vysokej hodnoty emocionálneho vyčerpania (AM = 25,58) zatiaľ čo v dimenzii depersonalizácia zaznamenáva nízku hodnotu. Výsledok nášho výskumu je opačný, pretože sme v skúmanom súbore v tejto dimenzii tiež zaznamenali vyhorenie. Prick (1990, in Průcha, 1997) realizoval výskum na vzorke holandských učiteľov a poukázal na to, že vekom strácajú učitelia svoje ambície, znižuje sa záujem preukazovať svoje zručnosti a skúsenosti až napokon dochádza k rezignácií. Na základe realizovaného výskumu charakterizoval starších vyhasínajúcich učiteľov ako ľudí, ktorí s pribúdajúcim vekom zaznamenávajú klesajúci pocit uspokojenia z práce, strácajú chuť byť v kontakte so žiakmi a dochádza u nich k nárastu pocitu fyzického opotrebovania a psychického stresu. Rovnako ako už uvedené výskumy, ktoré poukazujú na vzťah medzi vekom a syndrómom vyhorenia a stresom, Dan (1998) tvrdí, že proces starnutia a neustály kontakt so žiakmi spôsobuje u učiteľov zníženie pružnosti a neschopnosť reagovať na potreby žiakov. Učitelia tak získavajú pocit, že nezvládajú svoju prácu, čo podporuje výskyt trvalého stresu. Na základe uvedených výskumov a nášho realizovaného výskumu môžeme povedať, že vek je premennou, ktorá ma z veľkej miery vysoký podiel na vzniku syndrómu vyhorenia a miery prežívaného stresu. Taktiež vek ovplyvňuje osobné uspokojenie vychádzajúce z práce - čím je vek vyšší, tým je osobné uspokojenie nižšie, na čo poukazuje množstvo výskumov, vrátanie nášho, kde položka osobné uspokojenie dosahovala mínusové hodnoty (-0,67).

Z výskumov Fialovej a Hučkovej (1998), Pricka (1997) a Dana (1998) vyplýva, že stres a syndróm vyhorenia spolu úzko súvisia. Tento súvis sa preukázal aj v našom výskume, ktorý poukázal na to, že čím je skóre stresu vyššie, tým je prítomnosť syndrómu vyhorenia vyššia. Spearmanovou korelačnou analýzou sme zistili, že v metóde MBI sú zložky emocionálne vyčerpanie a depersonalizácia nad hladinou významnosti a poukazujú prítomnosť stresu, zatiaľ čo zložka osobné uspokojenie dosahuje mínusové hodnoty čo znamená, čím je miera stresu vyššia tým je uspokojenie z práce a jej efektivita nižšia. Takýto výsledok môže súvisieť s množstvom problémových žiakov v triede. Auger a Bouchrlat (2005) pod problémovým žiakom na základe ankety, rozumejú žiaka, ktorý na hodinách vyrušuje iných žiakov a odmieta pracovať, je nepokojný, konfliktný a reaguje agresívne. Ak sa v triede nachádza viac takýchto problémových žiakov ide o označenie „problémová trieda“. V takejto triede učiteľ nedokáže pracovať, pretože zo strany žiakov dochádza k nezáujmu, odmietaniu spolupráce a neustálemu vyrušovaniu. K problémovým žiakom radí žiakov s problémami v učení a s problémami v správaní. Výsledky výskumu Kohoutka (2009) sú zamerané na stres, ktorý je spôsobený v súvislosti s problémovými žiakmi. Poukazuje na to, že až 65% pedagógov v doterajšej praxi prežili stresujúce situácie spôsobené žiakmi s poruchami správania, verbálnou agresivitou a dokonca aj násilím voči pedagógom. Ďalšími faktormi, ktoré vplývajú na stres v učiteľskej profesii uvádza Onderčová (2003) triedy s veľkým množstvom žiakov, nezáujem zo strany žiakov o učenie, problémy v školskej disciplíne, väčší počet problematických žiakov v triede, nevhodná klíma v triede a v pracovnom kolektíve, mobbing, problémy ženských a mužských zborov, postavenie učiteľov. Keďže náš výskum nebol zameraný na stresory, ktoré spôsobujú vznik stresu, ale len na jeho prítomnosť v jednotlivých školách môžeme sa domnievať, že takýto výsledok a jeho prítomnosť môže byť spôsobený taktiež práve takýmito stresormi, ktoré uvádzajú autori uvedených výskumov (Drotárová, 2006, Hučková, 2011, Kohoutek, 2009).

V rámci našej hypotézy sme zisťovali, či medzi nami vybranými dotazníkmi merajúcimi syndróm vyhorenia existuje štatisticky významná spojitosť. Nami vytvorenú hypotézu sme zisťovali Spearmanovou korelačnou analýzou a na základe výsledkov príjmame hypotézu. Na základe analýzy tak môžeme povedať, že testy sú spoľahlivé a spolu pozitívne súvisia.

Osobné uspokojenie znovu vykazovalo opozitnú polaritu čo naznačuje u vyhoreného učiteľa nedostatočné osobné uspokojenie z vlastnej práce tak ako to uvádza vo svojom výskume autor Prick (1990, in Průcha, 1997). K podobným zisteniam prišli aj iní odborníci, ktorí uvádzajú, že medzi jednotlivými zložkami syndrómu vyhorenia a stresom existuje štatisticky významný vzťah (Kebza Šolcová, 1998, 2003, Baranovská, Petlák, 2016, Kolnárová, 2011, Kolibárová, 2012). Zisteniami z nášho výskumu poukazujeme na vážnosť problému a potrebu venovať mu zvýšenú pozornosť. Problematika stresu a syndrómu vyhorenia by mala byť súčasťou vzdelávania učiteľov, ale aj žiakov na stredných a vysokých školách (Kopřiva, 1997, Křivohlavý,1994, 1998, 2001, Lazarus, 2007) . Učitelia by tak získali množstvo metód ako zvládať stres efektívnejšie a dokázali by sa vyhnúť syndrómu vyhorenia. Je tak nutné venovať pozornosť záťaži a stresu v práci pedagóga a v súvislosti s týmto problémom navrhnúť preventívne opatrenia. Takéto opatrenia by mali spadať pod kompetenciu školského manažmentu, ktorého úlohou je pravidelne sledovať psychický stav pedagógov. Na elimináciu stresu a syndrómu vyhorenia je vhodné vypracovať antistresový program pre pedagógov všetkých typov škôl (Baštecká, 2003, Lazarus, 2007).

4.2 Limity výskumu

Za primárny limit nášho výskumu považujeme malý počet respondentov a zameranie len na výberové školy, čo do značnej miery mohlo ovplyvniť nami získané poznatky v negatívnom smere. Znamená to, že nami získané poznatky nie je z týchto dôvodov možné aplikovať na celú populáciu, teda nie je možné ich zovšeobecniť.

Za ďalší limit považujeme použitie dotazníkovej metódy, ktorú sme použili na získanie informácií od respondentov. Na jednej strane je dotazníková metóda jedným z najrýchlejších spôsobov získania informácií, ale na strane druhej nemôžeme tvrdiť, že odpovede respondentov sú vždy pravdivé, pretože respondent môže byť ovplyvnený iným respondentom. Vhodné by bolo sa v budúcnosti zamerať na elimináciu tohto javu prostredníctvom poskytnutia dostatku informácií jednotlivým respondentom a prípadne využiť hodnotenie v jednotlivých aspektoch prostredníctvom nezainteresoivanej osoby. Vhodné by bolo v budúcich výskumoch dostatočne objasniť význam a možnosti využitia výsledkov v praxi, ale i v ich súkromnom živote.

Keďže výskum nebol realizovaný medzi učiteľmi v rovaký čas a za rovnakých podmienok za limit považujeme pôsobenie vonkajších premenných, ktorým sa pri realizácií nevenovali dostaok pozornosti. Respondentom dôkladnejšie vysvetlíme samotný význam výskumu a poukážeme na možné prínosy, ktoré im pomôžu v ich pracovnom ale aj súkromnom živote.

Posledný limit nášho výskumu je možné zaznamenať na základe faktu, že sme sa nedostatočne zamerali na vyváženie vzorky na základe pohhlavia, čo do značnej miery mohlo negatívne ovplyvniť nami získané poznatky.

4.3 Budúce zámery

Do budúcnosti môžeme výskum rozšíriť na väčšiu vzorku, aby sme výsledky mohli zovšeobecniť na celé Slovensko. Dotazníkovú metódu by sme rozšírili o otázky týkajúce sa príčin vzniku stresu a o osobný rozhovor, na základe ktorého môžeme získať dôveryhodnejšie informácie. Taktiež by sme sa okrem zisťovania miery burnoutu zamerali i na osobnostné charakteristiky participantov, ktoré do značnej miery môžu inhibovať, alebo stimulovať vznik a následny rozvoj burnoutu u učiteľov. Vhodné by bolo zamerať sa i na problematiku perfekcionizmu, ktorý by mohol indukovať vznik samotného burnoutu alebo jeho jenotlivých aspektov. Predpokladáme, že medzi perfekcionizmus je jedným z hlavných prediktorov rozvoju burnoutu.

4.4 Dôsledky vyplývajúce z výskumu

Nami získané výsledky poukazujú na to, že profesia pedagóga nie je jednoduchá v nesie zo sebou pozitíva a negatíva. Jedným z tých negatívnych je práve fakt, že učiteľ môže podľahnúť stresu a z neho vyplývajúceho syndrómu vyhorenia. Preto je dôležitá prevencia. Samotní učitelia by sa mali zaujímať o svoju vlastnú situáciu ale táto prevencia by v prvom rade mala vychádzať zo strany školy, ktorá zodpovedá za svojich zamestnancov. Vedenie školy by malo organizovať rôzne programy zo zameraním ako sa vyhnúť a zabrániť stresu a syndrómu vyhorenia.

Zoznam použitej literatúry

1. Auger, M., - Boucharlat, CH. 2005. Učitel a problémový žák. Praha: Portál, 121 s. ISBN: 80-7178-907-0.
2. Baranovská, A. – Petlák, E., 2016. *Stres v práci učiteľa a syndróm vyhorenia.* Wolters Kluver s.r.o., prvé vydanie, s 129. ISBN: 970-80-8168-450-0.
3. Baštecká, B., 2003. *Klinická psychologie v praxi.* Praha: Portál. s 416. ISBN: 80-7178-735-3.
4. Baumgartner, F., 2001. *Zvládanie stresu – coping.* In: Výrost, J., Slaměník, I. (Eds.): Aplikovaná sociálna psychológia II. (pp. 191 – 208) Praha: Grada Publising.
5. Borg, M. – Riding, R., 1993. *Teacher stress and cognitive style.* s 271 – 286.
6. Dan, J., 1998. *Pracovní vyprahnutí učitelů, Učitelé a zdraví*, 1, s. 67-73.
7. Drotárová, E., 2006. *Syndróm vyhorenia u učiteľov a iných pracovníkoch v pomáhajúcich profesiách.* In: Psychologická revue. Prešov: Prešovská univerzita v Prešove, s 88 – 109, ISBN: 80-8068-507-5.
8. Ďurič, L., 1997. *Pedagogická psychológia. Terminologický a výkladový slovník.* Bratislava: SNP, 5. vydanie, s 464, ISBN: 80-0802-498-4.
9. Fialová, I. – Schneiderová, A., 1998. *Syndtom vyhoření v profesní skupine středoškolských učitelů*. In. Řehulka, E. – Řehulkavá, O., (Eds.): *Učitelé a zdraví*. Brno: Psychologický ústav AVČR, s. 55-56. ISBN: 80-902653-0-8.
10. Henning, C. – Keller, G., 1996. *Antistresový program pro učitele: Projevy, príčiny a způsoby překonání stresu z povolání.* Praha: Portál.
11. Hučková, J., 2011. *Úroveň stresu a syndrómu vyhorenia u učiteľov v závoslosti od štýlu vedenia školy.* Prešov. s 203 – 207.
12. Jeklová, M. – Raitmayerová, E., 2006. Syndróm vyhoření. Praha: Triton. s 32, ISBN: 80-86991-74-1.
13. Kallwass, A., 2007. Syndrom vyhoření. Praha: Portál. s 139, ISBN: 978-80-7367-299-7.
14. Kebza,V. – Šolcová, I., 1998. *Burnout syndrom. Teoretická východiska, diagnostické a intervenční možnosti.* Československá psychologie, 5, 429-445.
15. Kebza, V. – Šolcová, I. 2003. *Syndrom vyhoření*. Praha: Štátni zdravotní ústav. s 23. ISBN: 80-7071-231-7.
16. Kohoutek, R. 2009. *Typologie osobnosti učitelů. In psychologie v teorii a praxi*. [on line] [cit. 5.03.2010] dostupné na internete: http://rudolfkohoutek.blog.cz/1003/stresory-ucitelu-zakladnich-a-strednich-skol
17. Kohoutek, R. – Řehulka, E., 2011. *Typologie osobnosti učitelů.* In Psychologie v teorii a praxi [on line] [cit. 1.12.2017] dostupné na internete: http://rudolfkohoutek.blog.cz.
18. Kolibárová, I., 2011. *Syndróm vyhorenia vo vzťahu k pracovnej spokojnosti a sociálnej opore v dvoch skúmaných profesiách.* Diplomová práca. Prešov: Prešovská univerzita. s 68.
19. Kolinárová, I., 2012. Syndróm vyhorenia v učiteľskej profesii vo vzťahu k pracovnej spokojnosti a sociálnej opry. In Pedagogické rozhľady. Č. 3-4, s. 9-13, ISSN: 1335-0404.

20. Korczińsky, S., 2015. *Stres w pracy zawodowej nauczyciela.* Impuls: Krakow. ISBN: 978-83-978-83-7850-688-1.
21. Kopřiva, K., 1997. *Lidský vztah jako součást profese.* Praha: Portál. s 148. ISBN: 80-7367-181-6.
22. Křivohlavý, J., 1994. *Jak zvládat stres.* Praha: Grada. s 192. ISBN: 80-7169-121-6.
23. Křivohlavý, J., 1998. *Jak nestratiť nadšení.* Praha: Grada.
24. Křivohlavý, J., 2001. *Psychologie zdraví.* Praha: Portál. ISBN: 80-7171-551-2.
25. Lazarus, R.S., 2007. *Stress and Emotion: A New Synthesis.* In A. Monat, R.S Lazarus, G. reevy (Eds.) The Praeger Handbook on stress and coping. Vol. 1, Chapter 2, p. 33-51, Westpord: Praeger.
26. Miškolciová, L., 2004. *Vplyv burn – out syndrómu na kvalitu života učiteľov.* In Džuka. J., (Ed). Psychologické dimenzie kvality života. Prešov: Prešovská univerzita, s 399-406, ISBN: 80-8068-282-8.
27. Musil, L., 2010. *Stres, syndrom vyhoření a mentálně hygienická optima v dynamice lidského sociálního chování.* Olomouc: Psychologická a výchovná poradna, 1. vydanie, s 60, ISBN: 978-80-903449-9-0.
28. Onderčová, V. 2003. *Kto je vyhorený učite? In Súčasný učiteľ.* Metodicko-pedagogické centrum. Prešov, s. 1-14.
29. Průcha, J., 1997. *Moderní pedagogika.* Praha: Portál.
30. Rush, M.D., 2003. *Syndrom vyhoření.* Praha: Návrat domů, s 129, ISBN: 80-7255-074-8.

Kontakt

PhDr. Andrea Baranovská PhD.
Katedra psychológie, Filozofická fakulta Univerzity sv. Cyrila a Metoda v Trnave
andrea.baranovska@ucm.sk

PhDr. Dominika Doktorová PhD.
Katedra psychológie, Filozofická fakulta Univerzity sv. Cyrila a Metoda v Trnav
dominika.doktorova@ucm.sk

PhDr. Jana Hubinská PhD.
Katedra psychológie, Filozofická fakulta Univerzity sv. Cyrila a Metoda v Trnave
jana.hubinska@ucm.sk

VZÁJOMNÉ KONEXIE MEDZI TVORIVOSŤOU, KLÍMOU PRACOVNÉHO PROSTREDIA A OSOBNOSTNÝMI CHARAKTERISTIKAMI PODĽA CATTELLA U PRACOVNÍKOV

THE INTERRELATIONSHIP BETWEEN CREATIVITY, THE CLIMATE OF THE WORKING ENVIRONMENT AND THE PERSONALITY CHARACTERISTICS OF CATTELLO FOR WORKERS

Doktorová Dominika, Masár Michal

Abstrakt

Hlavným cieľom nášho výskumu bolo zistiť, či medzi tvorivým potenciálom a osobnostnými vlastnosťami existujú vzájomné konexie a či sa prejavujú v odlišnom percipovaní charakteristík klímy na pracovisku. Výskumný súbor sme zvolili zámerným výberom a pozostával z 80 (N=80) participantov, ktorí pracovali na pozícii projektant alebo odborník. Na zisťovanie faktorov tvorivosti sme využili Torranceho figurálny test tvorivosti, Cattellov dotazník 16 PF na detekovanie osobnostných charakteristík a na identifikovanie klímy pracovného prostredia dotazník CKF. Zisťovali sme, ktoré osobnostné vlastnosti dokážu predikovať originalitu jedincov.Významný sa ukázal faktor inteligencie a faktor integrácie self sentimentu. Cieľom výskumu bolo i zistiť, či u tvorivých jednotlivcov existuje štatisticky významný vzťah medzi faktorom nízkej tenzie (Cattell Q4) a pozitívnym vnímaním klímy pracovného prostredia. Zisťovali sme, či u tvorivých jednotlivcov existuje štatisticky významný vzťah medzi faktorom uzavretosti - Cattell A a negatívnym vnímaním klímy pracovného prostredia.

Kľúčové slová: *Tvorivosť. Osobnosť. Tvorivá osobnosť. Klíma pracovného prostredia.*

Abstract

The main purpose of our research was to find out whether there are mutual connections between creative potential and personality traits and whether they are reflected in a different perception of the climate characteristics of the workplace. We have chosed the research file by deliberate selection and consisted of 80 (N = 80) participants, who worked as as planner or experts. To find out the factors of creativity, we used the Torrance figural creativity test, the Cattell 16 PF questionnaire for detecting personality traits and the CKF questionnaire to identify the working environment climate. We have identified which personality traits can predict the originality of individuals. The important factor has been the intelligence factor and the factor of integrating self-sentiment. The aim of the research was to find out whether there is a statistically significant relationship between the low-stress factor (Cattell Q4) and the positive perception of the working environment. We found out that there is a statistically significant relationship between creative factors - Cattell A closure factor and negative perceptions of the work environment.

Keywords: *Creativity. Personality. Creative personality. Climate of the working environment.*

1 Úvod

Všeobecne akceptovaná definícia tvorivosti však neexistuje (Lukášová, Nový, 2004). Odborníci tvrdia, že koľko psychologických smerov, toľko je aj definícií tvorivosti (Jurčová,

2002, 2009, Kloudová a kol., 2010, Tuma, 2001). Charakteristickou črtou všetkých definícií tvorivosti je zameranie sa na objasnenie jej komplexnosti (Doktorová, 2013, Preiser, 2006). Tvorivosť je vždy determinovaná jedincom (opis jeho typických charakteristík - vysoká úroveň motivácie, pracovná výdrž), ktorý musí zrealizovať určitý akt (objavenie nového riešenia prostredníctvom rozširovania a transformovania známych postupov) smerujúci k vzniku produktu tvorivosti (myšlienka, výtvor, riešenie, ktoré je neobvyklé a prínosné pre spoločnosť). Na tvorivosť do značnej miery vplýva prostredie, v ktorom sa dochádza k jej vzniku (malo by byť podnetné, evokovať záujem hľadať niečo nové) (Doktorová, 2013).Tvorivosť je výsledkom pôsobenia vonkajších síl alebo výsledkom interakcie subjektu s objektom. Môžeme ju definovať aj dynamicky ako správanie alebo ako vysokoflexibilný proces analýzy, syntézy a štrukturalizácie (Dočkal, 2006, Tóthová, 2006, Mikuláštik, 2010). Furnham a Bachtiar (2008) sa zaoberali osobnosťou ako prediktorom tvorivosti. Extroverzia bola najvýznamnejším korelantom, po ktorom nasledovala otvorenosť voči skúsenosti. Extroverzia a otvorenosť voči skúsenosti umožňuje jedincom, aby boli viac zvedaví, s viacerými skúsenosťami a aby sa zaujímali o výstrednosť, čo môže zase zvýšiť ich schopnosť vytvárať nové a inovatívne nápady (Furnham, Bachtiar, 2008). Štúdia Hoseinifara a kol. (2011) tvrdí, že svedomitosť, zmysel pre zodpovednosť a prívetivosť, sú dôležitým prediktorom pre tvorivosť (Hoseinifar a kol., 2011). Vo výskume Jurčovej (2002) sa zistilo, že potreba nezávislosti, sebarealizácie a riadenia svojho života sú príznačné pre vysoko tvorivé osoby. Vykonané analýzy Costu a kol. (2015) poskytujú dôkazy o faktoroch osobnosti, ktoré posilňujú kreativitu a inováciu. Výsledky ukazujú, že nízka alexitýmia a vysoká empatia sú silne spojené s tvorivosťou. Vo výskume bol zistený aj mierne silný vzťah medzi extraverziou a kreativitou. Dá sa to vysvetliť tým, že ľudia s touto charakterovou vlastnosťou majú viac energie, je viac pravdepodobné, že vyhľadávajú nové podnety, nové spôsoby, ako riešiť problémy, čo vedie k väčším tvorivým výsledkom. Byť emočne nestabilný, svedomitý a priateľský mierne brzdí kreativitu (Costa a kol., 2015, Cakirpaloglu, 2012 , Odcházel, 2007). Podľa výskumu Jurčovej (2009), sú pre tvorivosť a priaznivú klímu na pracovisku dôležité vlastnosti ako, uvoľnenosť, relaxovanosť, spokojnosť. Naopak vlastnosti, ktoré tvorivosť tlmia sú uzavretosť, nedôverčivosť (Jurčová, 2009). Tardif, Sternebrg (1989) zistili, že medzi osobnostné črty, podporujúce tvorivosť patrí relatívne vysoká inteligencia, originalita, verbálna fluencia a dobrá predstavivosť (Mikuláštik, 2010). Výskum Hirsha (2015), potvrdzuje dôležitosť inteligencie, ako podstatného faktora pre tvorivosť. Naopak štúdia, ktorá tiež skúma vzťah inteligencie a tvorivosti, tvrdí, že neexistuje významný vzťah faktora inteligencie a tvorivosti (Antonio, 2014, Čapek, 2010).Štúdia Hsu (2010) pojednáva o negatívnom vplyve časovej tiesne na tvorivý výkon a na klímu pracovného prostredia. Časový tlak brzdí rozvoj tvorivosti a podporuje rozvoj negatívneho vnímania klímy u zamestnancov. Jaiswal, Dhar (2015) zistili, že najviac tvoriví sú tí jednotlivci, ktorí pracujú v prostredí, kde dostávajú dostatočnú podporu a uznanie zo strany organizácie. Hunter a kol. (2007), vo svojej štúdii potvrdzujú dôležitosť podpory zo strany vedenia, ako dôležitého faktora klímy prostredia. Cokpekin a Knudsen (2011) na základe svojho výskumu tvrdia, že pre tvorivú klímu pracovného prostredia a pre inováciu sú dôležité účinky motivácie, povzbudenie cítené zamestnancami, jasná špecifikácia úloh (Cokpekin, Knudsen, 2011). Hlavným cieľom tohto výskumu je zistiť, či tvorivý potenciál v prepojeniach s osobnostnými vlastnosťami sa prejavuje v odlišnom percipovaní charakteristík klímy na pracovisku. Z hlavného cieľa sme si stanovili čiastkové ciele:

C. 1: Zistiť, ktoré osobnostné vlastnosti dominujú u tvorivých jednotlivcov, ktorí vnímajú klímu na pracovisku pozitívne.

C. 2: Zistiť, ktoré osobnostné vlastnosti dominujú u tvorivých jednotlivcov, ktorí vnímajú klímu na pracovisku negatívne.

C. 3: Zistiť, či faktor priestor pre inováciu, ktorý je charakteristický pre klímu pracovného prostredia je významný pre tvorivosť jednotlivcov.
C. 4: Zistiť, ktoré vlastnosti osobnosti predikujú silný vzťah s tvorivosťou jednotlivcov. Za účelom naplnenia cieľov nášho výskumu sme si stanovili jednu výskumnú otázku a päť hypotéz.
V. o. 1: *Ktoré osobnostné vlastnosti dokážu predikovať originalitu jedincov?*
Na základe výskumu Jurčovej (2002, 2009), ktorá skúmala osobnostné vlastnosti v súvislosti s klímou na pracovisku, sme si stanovili nasledovné hypotézy:
H 1: *Medzi tvorivými jednotlivcami existuje štatisticky významný vzťah medzi faktorom nízkej tenzie - Cattell Q4 (relaxovaný, pokojný, dôverčivý, chápavý, priateľský) a pozitívnym vnímaním klímy pracovného prostredia*.
H 2: *Medzi tvorivými jednotlivcami existuje štatisticky významný vzťah medzi faktorom uzavretosti - Cattell A (nedôverčivý, chladný, uzavretý) a negatívnym vnímaním klímy pracovného prostredia.*
Costa a kol. (2015), Dhara (2015), Hunter (2010) skúmali vzťahy medzi tvorivosťou a jednotlivými faktormi klímy na pracovisku, preto sme si zvolili nasledovnú hypotézu:
H 3: *Medzi jednotlivými faktormi tvorivosti a faktorom priestoru pre inovácie existuje štatisticky významný vzťah.*
Sternberg (1989), Furnham a Bachtiar (2008) skúmali, ktoré osobnostné črty podporujú tvorivosť. Na základe tohto výskumu sme si stanovili hypotézu:
H 4: *Medzi faktorom inteligencie – Cattell B a jednotlivými faktormi tvorivosti existuje štatisticky významný vzťah.*
Hoseinifar a kol. (2011), Hirsch (2015) tvrdia, že svedomitosť, zmysel pre zodpovednosť a prívetivosť, sú dôležitým prediktorom pre tvorivosť.
H 5: *Medzi faktorom G, teda silou super ega (svedomitosť, zodpovednosť, rozhodnosť) a faktorom originality existuje štatisticky významný vzťah*.

2Metódy

2.1 Výskumný súbor

Vo výskume sme uskutočnili zámerný kvótovaný výber vzorky. Problematiku vzťahov medzi skúmanými premennými sme sa rozhodli skúmať v prostredí firmy zameranej na výskum jadrovej energie. Výskumnú vzorku tvorilo 80 zamestnancov organizácie. Išlo o vzorku mužov, ktorí boli porovnateľní z hľadiska povolania, veku, platových podmienok. Vybrali sme si pracovnú pozíciu odborníka na stavbe a pracovnú pozíciu projektanta. Náplňou práce odborníka na stavbe je poskytovanie montážnych a servisných činností, zámočníctvo, zváračstvo. Práca odborníka je väčšinou vykonávaná v exteriéri. Náplňou práce projektantov je zakresľovanie výkresov o stavbe, vedenie dokumentov o stavebných činnostiach. Práca projektanta je vykonávaná v interiéri. Išlo o vekovú kategóriu v rozmedzí 30 – 45 rokov.

Tabuľka č. 1: Vek respondentov

N	80
Median	37,5
Modus	40,0
Minimum	30,0
Maximum	45,0

Zdroj: autori práce

2.2 Materiály a aparatúry

Úroveň tvorivosti sme zisťovali štandardizovaným Torranceho testom tvorivého myslenia (Torrance, 1966 in Jurčová, 1984). Hodnotia sa v ňom základné divergentné schopnosti fluencia, flexibilita, originalita. V našom výskume sme použili figurálnu formu Torranceho

testov tvorivého myslenia. Táto forma si vyžaduje kreslené odpovede. Figurálne formy obsahujú tri aktivity, vo výskume sme použili len dve. Aktivita neúplné figúry si vyžaduje dosiahnuť „mentálny skok“, ktorým sa subjekt dostane mimo toho, čo je bežné. Subjekt musí odložiť uspokojenie z impulzu uzavrieť figúru. Táto aktivita ukazuje tendenciu k štrukturácii a integrácii. Aktivita kruhy má za cieľ ukázať tendenciu k porušeniu už vytvorenej štruktúry, aby subjekt mohol vytvoriť niečo nové (Jurčová, 1984).
Na identifikovanie klímy pracovného prostredia sme použili štandardizovanú dotazníkovú metódu CKF (Čapek, 2010). V našom výskume sme pracovali s klimatickými faktormi dôvera, prínos, súdržnosť, priestor pre inovácie, starostlivosť, podpora, odmeny, schopnosť riešiť problémy, konflikty, efektívna komunikácia, schopnosť plánovať budúcnosť (Čapek, 2010).
Osobnostné vlastnosti respondentov sme zisťovali osobnostným dotazníkom 16 PF (Cattell, 1933). Pracovali sme so všetkými primárnymi faktormi Cattellovho dotazníka, uzavretosť – bezprostrednosť, nízka inteligencia – vysoká inteligencia, slabosť ega – sila ega, submisivita – dominancia, vážnosť – bezstarostnosť, plachosť – spontánnosť, tvrdý realizmus – závislá citovosť, dôverčivosť – nedôverčivosť, praktickosť – imaginatívnosť, naivita – prefíkanosť, sebadôvera – neistota, konzervatizmus – radikalizmus, závislosť na skupine – sebestačnosť, nízka integrácia self sentimentu – veľká sila self sentimentu, nízka tenzia – vysoká tenzia (Weeks, 2014).

2.3 Procedúra

Štatistickej analýze sme podrobili nasledovné premenné:

- Pracovali sme s nominálnou premennou povolanie.
- Pracovali sme s intervalovými premennými:
- Primárne faktory podľa Cattella – faktor A, teda uzavretosť, faktor B, teda inteligencia, faktor G, teda sila superega, faktor Q3, teda integrácia self sentimentu, faktor Q4, teda faktor tenzie.
- Faktory pracovnej klímy - faktor priestoru pre inovácie, pracovali sme s hrubým skóre pracovnej klímy (negatívna, pozitívna klíma na pracovisku).
- Faktory tvorivosti podľa Torrance – fluencia, flexibilita, originalita, elaborácia.

Štatistické spracovanie dát tvorilo niekoľko na seba nadväzujúcich krokov. Ako prvé sme zozbierané dáta získané od respondentov, zaznamenali do databázy SPSS. Získané dáta za jednotlivé faktory z dotazníka Klímy na pracovisku sme zosumarizovali do hrubého skóre, čo nám poskytlo identifikáciu pozitívnej a negatívnej klímy na pracovisku. Teda čím vyššie skóre respondenti dosahujú, tým je klíma pracovného prostredia hodnotená pozitívnejšie.
Druhým krokom sme zisťovali normálne rozloženie dát Kolmogorovym Smirnovym testom, pričom nám normalita nevyšla. Teda na zistenie vzťahov a rozdielov medzi skúmanými premennými sme využívali neparametrickú verziu Spearmanovho korelačného koeficientu a neparametrickú verziu Mann-Whitney U testu. Na získanie odpovede druhej výskumnej otázky sme použili multinominálnu regresnú analýzu.

3 Výsledky

Za účelom prehľadnosti uvádzame pod jednotlivé otázky a hypotézy tabuľky.
Výsledky neparametrického Man-Whitneyho U testu naznačujú štatisticky významný rozdiel medzi premennými robotník a projektant vo
Výskumná otázka č. 1: *Ktoré osobnostne vlastnosti dokážu predikovať originalitu jedincov?*
VO 1 sme overovali multinominálnou regresnou analýzou. Ako postup sme zvolili spätnú cestu s manuálnou kontrolou a následným odoberaním prediktorov, ktoré sa neukázali ako významné.

Tabuľka č. 2

R	R^2	Adjustovaný R^2	Štd. chyba odhadu	Change Statistics					Durbin-Watson
				Zmena R^2	Zmena F	df1	df2	Sig.	
,803[a]	,646	,636	4,98074	,646	70,135	2	77	,000	1,920

Zdroj: autori práce

Tabuľka č.3

ANOVA[a]						
Model		Suma štvorcov	df	Priemerný štvorec	F	Sig.
1	Regresia	3479,791	2	1739,895	70,135	,000[b]
	Residual	1910,197	77	24,808		
	Total	5389,988	79			

Zdroj: autori práce

Tabuľka č.4 Cattell B a Cattell Q3 ako prediktory tvorivosti

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7,803	2,136		3,654	,000		
	CattellB	1,296	,110	,802	11,782	,000	,994	1,006
	CattellQ3	-,350	,166	-,144	-2,109	,038	,994	1,006

Zdroj: autori práce

Overovaním predpokladov regresie neboli nájdené výrazné aberácie. Do predloženého modelu multinominálnej lineárnej regresie sme zahrnuli dva prediktory Cattell B, teda inteligencia a Cattell Q3, teda integrácia self sentimentu. Celková charakteristika modelu dosiahla dve hodnoty *F (2)* = 70,135; *M se* = 1739,9; sig. < 0,001. Hodnoty štandardizovaných koeficientov pre tieto prediktory boli *ß Cattell B*= 0,802; *ß Cattell Q3*= -0,144 a hodnota konštanty *ß* = 7,803. Tento model vysvetľuje podľa adjustovaného *R2* približne 64% variácie dimenzie originality v Torranceho teste.

H. 1 *Medzi tvorivými jednotlivcami existuje štatisticky významný vzťah medzi faktorom nízkej tenzie - Cattell Q4 (relaxovaný, pokojný, dôverčivý, chápavý, priateľský) a pozitívnym vnímaním klímy pracovného prostredia*.Pred procedúrou sme ako kritérium tvorivosti zvolili skóre v dimenzii originality väčšie ako 18 (Md = 18).

Tabuľka č. 5 Vzťah faktora Q4 a pozitívnej pracovnej klímy.

Korelácie			
			Pozitívna klíma - Hrubé skóre
Spearman's rho	CattellQ4	Korelačný koeficient	0,100
		Sig. (2-stranná)	0,378
		N	80

Zdroj: autori práce

Hypotézu č. 1 sme overovali Spearmanovým korelačným testom. Jeho výsledky naznačujú, že medzi premennou Q4 a pozitívnym vnímaním pracovnej klímy nie je štatisticky významný vzťah ($r_s = 0{,}1\,; sig > 0{,}05$).

H. 2 *Medzi tvorivými jednotlivcami existuje štatisticky významný vzťah medzi faktorom uzavretosti - Cattell A (nedôverčivý, chladný, uzavretý) a negatívnym vnímaním klímy pracovného prostredia.* Pred procedúrou sme ako kritérium tvorivosti zvolili skóre v dimenzii originality väčšie ako 18 (Md = 18).

Tabuľka č.6 Vzťah faktora A a negatívnej pracovnej klímy

Korelácie			
			Negatívna klíma - Hrubé skóre
Spearman's rho	CattellA	Korelačný koeficient	0,214
		Sig. (2-stranná)	0,192
		N	39

Zdroj: autori práce

Výsledky naznačujú, že medzi premennou Cattell A a negatívnym vnímaním pracovnej klímy nie je štatisticky významný vzťah ($r_s = 0{,}214\,; sig > 0{,}05$).

H. 3. *Medzi jednotlivými faktormi tvorivosti a faktorom priestoru pre inovácie existuje* štatisticky významný vzťah.

Tabuľka č. 7 Vzťah faktora priestoru pre inovácie a jednotlivých faktorov tvorivosti

Correlations						
			Tfluencia	Tflexibilita	Toriginalita	Telaborácia
Spearman's rho	Klíma inovácia	Correlation Coefficient	-,019	,184	,464**	,357**
		Sig. (2-tailed)	,870	,101	,000	,001
		N	80	80	80	80

Zdroj: autori práce

Výsledky naznačujú, že medzi premennou Inovácia a Fluencia nie je štatisticky významný vzťah ($r_s = -0{,}019\,; sig > 0{,}05$).

H. 4 *Medzi faktorom inteligencie – Cattell B a jednotlivými faktormi tvorivosti existuje štatisticky významný vzťah.*

Tabuľka č. 8 Vzťah faktora B a jednotlivých faktorov tvorivosti.

Correlations							
			CattellB	Tfluencia	Tflexibilita	Toriginalita	Telaborácia
Spearman's rho	CattellB	Korelačný koeficient	1,000	,052	,411**	,743**	,607**
		Sig (2-stranná)		,648	,000	,000	,000
		N	80	80	80	80	80

Zdroj: autori práce

Výsledky naznačujú, že medzi inteligenciou a faktorom fluencie v Torranceho teste tvorivosti nie je štatisticky významný vzťah ($r_s 0{,}052\,; sig > 0{,}05$).

H. 5 *Medzi faktorom G, teda silou super ega (svedomitosť, zodpovednosť, rozhodnosť) a faktorom originality existuje štatisticky významný vzťah*

Tabuľka č. 9: Vzťah faktora G a faktora originality.

Korelácie			
			Toriginalita
Spearman's rho	CattellG	Korelačný koeficient	0,182
		Sig. (2-stranná)	0,106
		N	80

Zdroj: autori práce

Výsledky naznačujú, že medzi faktorom G a faktorom originality nie je štatisticky významný vzťah ($r_s = 0{,}182\,; sig > 0{,}05$).

4 Diskusia

4.1 Interpretácia výsledkov

Na základe zozbieraných údajov sme overovali súvislosti faktorov tvorivosti, osobnostných vlastností a faktorov klímy pracovného prostredia.

Prvou výskumnou otázkou sme zisťovali, ktoré osobnostné vlastnosti dokážu predikovať originalitu jedincov. Výskumnú otázku sme overovali multinominálnou regresnou analýzou, do ktorej sme aplikovali všetky primárne faktory Cattellovho dotazníka. Vo výsledkoch sa nám preukázali dva významné faktory. Faktor B z Cattellovho dotazníka vypovedá o inteligencii. Z výsledkov vyplýva, že spomínaný faktor zvyšuje originalitu jedincov (ß Cattell B= 0,802). Faktor Q3 z Cattellovho dotazníka vypovedá o integrácii self sentimentu. Výsledky ukazujú, že tento faktor originalitu naopak znižuje (ß Cattell Q3= - 0,144). Domnievame sa, že inteligencia je dôležitá pre faktor originality, pretože inteligentný človek je charakterizovaný ako, rýchlo adaptibilný na meniace sa podmienky, chápavý, vytrvalý, produkujúci (Špringlerová, 2012, Mičková, 2017). Súvislosť charakteristiky inteligencie vidíme v prepojení s definíciou originality, ako rýchlym a pohotovým prepájaním myšlienkových operácií, produkovaní nových nápadov, rýchlym a správnym pochopením úloh (Salbot, 2007, Doktorová, 2013). Významný faktor inteligencie pre tvorivosť a originalitu podporuje aj výskum Hirsha (2015) ktorý, potvrdzuje dôležitosť inteligencie, ako podstatného faktora pre tvorivosť a originalitu. Faktor Q3, teda integrácia self sentimentu je pri dosahovaní nízkeho skóre charakterizovaný ako, riadiaci sa vlastnými pudmi, bez sebakontroly, a naopak pri dosahovaní vyššieho skóre charakterizovaný, silou vôle, prílišnou sebakontrolou (Schmidtová, 2012, Preiser, 2006). Ani v jednom z pólov integrácii self sentimentu nenachádzame vplyv na faktor originality. Myslíme si, že jedinec riadiaci sa vlastnými pudmi, bez sebakontroly, nie je nijakým spôsobom motivovaný k produktivite nových nápadov. Jedinec, ktorý je naopak ovplyvnený prílišnou sebakontrolou, tiež nemá priestor pre originálne nápady, pretože je príliš riadený určitými pravidlami, normami. Takýto jedinci môžu originalitu naopak znižovať (Tóthová, 2006). Výskum si do budúcna vyžaduje podrobnejšie preskúmanie faktora self sentimentu v súvislosti s tvorivosťou jedincov.

V hypotéze číslo 1 sme predpokladali, že u tvorivých jednotlivcov existuje štatisticky významný vzťah medzi faktorom nízkej tenzie - Cattell Q4 (relaxovaný, pokojný, dôverčivý, chápavý, priateľský) a pozitívnym vnímaním klímy pracovného prostredia. Hypotéza sa však nepotvrdila, medzi faktorom Q4 a pozitívnym vnímaním klímy pracovného prostredia nie sú štatisticky významné vzťahy. Znamená to, že pozitívne vnímanie klímy pracovného prostredia neimplifikuje dôverčivosť a chápavosť (Tuma, 2001, Knudsen, Cokpekin, 2011). V hypotéze číslo 2 sme predpokladali, že u tvorivých jednotlivcov existuje štatisticky významný vzťah medzi faktorom uzavretosti - Cattell A (nedôverčivý, chladný, uzavretý) a negatívnym vnímaním klímy pracovného prostredia. Hypotéza sa nám taktiež nepotvrdila, medzi faktorom A a negatívnym vnímaním klímy pracovného prostredia nie sú štatisticky významné vzťahy. Výskum Jurčovej (2009), naopak priniesol zistenie, že u tvorivých jedincov existuje významný vzťah medzi faktorom Q4 a pozitívnym vnímaním klímy pracovného prostredia a tiež zistenie, že medzi faktorom A a negatívnym vnímaním klímy pracovného prostredia existuje významný vzťah. Domnievame sa, že výsledky sa nezhodujú najmä preto, lebo autorka vo svojom výskume na overenie klímy pracovného prostredia použila odlišný dotazník, než používame my. Ďalším relevantným dôvodom, prečo nám vyšli rozdielne výsledky môže byť to, že jednotlivé faktory klímy pracovného prostredia z používaného dotazníka „CKF“, ktoré nám identifikovali pozitívnu a negatívnu klímu, sú vnímané ako málo zásadné pre tvorivosť. Napríklad Amabile (1988 in Weeks, 2014) vo svojom výskume tvrdí, že pre tvorivosť a tvorivé pracovné podmienky, sú dôležité faktory prostredia ako, prístup k zdrojom, optimálny časový priestor. Negatívne na tvorivosť a tvorivé pracovné podmienky vplýva, nespravodlivý systém hodnotenia (Mikuláštik, 2010). Hsa

(2010), potvrdzuje, že pre pozitívne vnímanie pracovného prostredia, je dôležité nemať obavy z hodnotenia svojho výkonu (Tóthová, 2006, Doktorová, 2013). Negatívnym vplyvom na tvorivosť je časový tlak, ktorý teda podporuje rozvoj negatívneho vnímania klímy u zamestnancov (Hsa, 2010). V neposlednom rade vo faktoroch prostredia pozitívne pôsobiacich na tvorivosť by mali byť zahrnuté účinky motivácie (Cokpekin , Knudsen, 2011). Znamená to, že do budúcna by sme mohli dotazník doplniť o spomínané faktory.
Hypotézou číslo 3 sme overovali, či existuje štatisticky významný vzťah medzi jednotlivými faktormi tvorivosti a faktorom priestoru pre inovácie. Výsledky ukazujú, že medzi faktorom fluencie a faktorom priestoru pre inovácie neexistuje štatisticky významný vzťah. Rovnako medzi faktorom flexibility a faktorom priestoru pre inovácie sa nepreukázal štatisticky významný vzťah. Medzi faktorom originality, elaborácie a faktorom priestoru pre inovácie sa preukázali štatisticky významné vzťahy (sig. < 0,001; sig. < 0,01). Znamená to, že naša hypotéza sa nám potvrdila len čiastočne. Faktor priestoru pre inovácie v organizácii je charakterizovaný tak, že organizácia by mala smerovať k rastu, práca v nej by nemala byť rutinná (Čapek, 2010, Špringlerová, 2012). Táto charakteristika súvisí s definíciou originality, že produkty, nápady by mali byť jedinečné, nemali by byť bežné. V elaborácii sa jedinec zaoberá detailmi, jedinec dokáže dopodrobna rozobrať situáciu, urobiť analýzu problému a rozobrať do podrobností aj príčiny problému (Preiser, 2006, Tóthová, 2006). Domnievame sa, že bez charakterizovaných faktorov tvorivosti, by inovácia nebola možná.
V hypotéze číslo 4 sme predpokladali, že existuje štatisticky významný vzťah medzi faktorom inteligencie – Cattell B a jednotlivými faktormi tvorivosti. Vo faktore fluencie sme nezaznamenali štatisticky významný vzťah medzi spomenutým faktorom tvorivosti a faktorom inteligencie. Vo faktoroch flexibility, originality, elaborácie zaznamenávame štatisticky významné vzťahy s faktorom inteligencie (sig. < 0,001; sig. < 0,001; sig. < 0,01). Hypotézu teda môžeme potvrdiť len čiastočne. Tardif, Sternberg (1989) zistili, že medzi osobnostné črty podporujúce tvorivosť patrí inteligencia (Mikuláštik, 2010). Výskum Hirsha (2015), potvrdzuje dôležitosť inteligencie, ako podstatného faktora pre tvorivosť. Naopak štúdia, ktorá tiež skúma vzťah inteligencie a tvorivosti tvrdí, že neexistuje významný vzťah faktora inteligencie a tvorivosti (Antonio, 2014). Význam inteligencie bol preukázaný už overením tretej výskumnej otázky. Vo výskumnej otázke sme však zisťovali len význam inteligencie a originality. Hypotéza číslo 4 nám poskytla aj dôležité prepojenia inteligencie s flexibilitou a elaboráciou. Myslíme si, že elaborácia teda, analyzovanie problémov detailnejším spôsobom a flexibilita, teda pružnosť v myslení sú dôležitými faktormi pre inteligenciu. Zastávame názor, že analyzovanie problémových úloh, nevynechávanie detailov a prepájanie myšlienkových procesov sú zároveň aj charakteristikou inteligencie.
Hypotézou číslo 5 sme overovali, či existuje štatisticky významný vzťah medzi faktorom G, teda silou super ega (svedomitosť, zodpovednosť, rozhodnosť) a faktorom originality. Výsledky ukazujú, že medzi premennými neexistuje štatisticky významný vzťah, teda hypotézu zamietame. Hoseinifar a kol. (2011) tvrdí, že svedomitosť, zmysel pre zodpovednosť a prívetivosť, sú dôležitým prediktorom pre tvorivosť. Naopak výskum Costu (2015) poukazuje na fakt, že svedomitosť mierne brzdí tvorivosť. Z nášho výskumu teda vyplýva, že svedomitosť a zmysel pre zodpovednosť nijak nevplývajú na originalitu jednotlivcov.

4.2 Limity a budúce zámery

V rámci výskumu je možné uviezť niektoré pozitíva a negatíva. Jeden z najväčších limitov je spôsob, akým sme zisťovali klímu pracovného prostredia. Dotazníkom „CKF“ je merané najmä pracovné prostredie v oblasti školstva. Niektoré škály v dotazníku sa týkajú výlučne školského prostredia. Manuál však poskytuje informáciu o tom, že pre meranie klímy v inom pracovnom prostredí, je možné nepotrebné škály z dotazníka vylúčiť a otázky v dotazníku

modifikovať. Vynechanie alebo modifikácia niektorých otázok, nemení podstatu dotazníka (Špringelová, 2012). Pozitívom využitia dotazníka „CKF“ vidíme v tom, že nám poskytol potrebné informácie o vnímaní pozitívnej a negatívnej klímy konkrétneho pracovného prostredia.

Výskumný súbor, ktorý tvorili odborníci a projektanti, pochádzal z jednej organizácie, ktorá je zameraná na výskum jadrovej energie. Zamerali sme sa len na vzorku mužov. Výsledky by teda mohli byť presnejšie, ak by sme do výskumu zapojili viac organizácii a súvislosť tvorivosti, osobnostných vlastností a klímy pracovného prostredia overovali aj na ženskej populácii. Nie je však jasné, či by boli výsledky odlišné.

Za limit považujeme aj náročnosť a dĺžku administrácie dotazníkov. Jeden respondent potreboval približne jednu hodinu na vyplnenie všetkých troch metód. V dôsledku toho boli niektoré dotazníky vyplnené len mechanicky, to znamená, že určité otázky boli vynechané a nezakrúžkované, alebo v niektorých prípadoch bola vynechaná jedna celá strana. Po vyhodnotení a prekontrolovaní dotazníkov sme boli nútení vyradiť celkovo 40 dotazníkov.

Pre budúce zámery skúmania súvislosti tvorivosti, osobnostných vlastností a klímy pracovného prostredia navrhujeme do výskumu zahrnúť predovšetkým dotazník, ktorý by nám neposkytoval len informácie o klíme prostredia, ale skúmal aj dimenzie vytvorené pre tvorivú klímu na pracovisku. Jednalo by sa konkrétne o Dotazník tvorivej klímy, ktorý je určený konkrétne pre organizácie, firmy, pre personálnu oblasť (Weeks, 2014) .

Do budúcna by sme administrovanie dotazníkov rozdelili do viacerých dní, čím by sme eliminovali účinky únavy a monotónnosti, ktoré nám spôsobili zredukovanie vyplnených dotazníkov. Výsledky nám poskytli zistenie, že inteligencia zvyšuje originalitu. Do budúcna by sme toto zistenie preskúmali viac do hĺbky. Dotazník CF2 interpretuje inteligenciu ako osobnostnú vlastnosť. Bolo by prínosné pokúsiť sa odmerať inteligenciu inteligenčnými testami. Na základe skúseností s inteligenčnými testami predpokladáme, že si nevyžadujú vysokú úroveň originality, teda videnie vecí novým spôsobom, nevyžadujú si jedinečné riešenia problémov.

Zoznam bibliografických odkazov

1. ANTONIO, T. a kol. 2014. Correlations Creativity, Intelligence, Personality, and Entrepreneurship Achievement. [online] Publ. 21.2. 2014. [cit. 20.11. 2017]. Dostupné na internete
2. CAKIRPALOGLU, P. 2012. Úvod do psychologie osobnosti. Praha: Grada Publishing, 2012. 287 s. ISBN 978-80-247-4033-1.
3. COSTA, S. 2015. Personal factors of creativity: A second order meta-analysis. [online] Publ. 3.12. 2015. [cit. 20.10. 2017]. Dostupné na internete: [http://www.sciencedirect.com/ science/article/pii/S1576596215000407].
4. ČAPEK, R. 2010. Třídní klima a školní klima. Praha: Grada Publishing, 2010. 325 s. ISBN 978-80-247-2742-4.
5. DOČKAL, L. 2006. Tvorivé nadanie. In KUSÁ, D.: Zjavná a skrytá tvorivosť. Bratislava: SAV, 2006. s. 83 – 106. ISBN 80-88910-21-8.
6. DOKTOROVÁ,D. 2013 Rozvíjanie tvorivosti na stredných školách prostredníctvom myšlienkových máp, Sapere Aude 2013 : Magnanimitas, 2013. - ISBN 978-80-905243-6-1, S. 244-253 [CD-ROM]
7. FURNHAM, A. – BACHTIAR, V. 2008. Personality and intelligence as predictors of creativity. [online] Publ. 7.11. 2008. [cit. 3.11. 2017]. Dostupné na internete: [http://www.sciencedirect.com/science/article/pii/S0191886908002419].
8. GOREJ, L. 2010. Škola – dielňa tvorivosti. Bratislava: Metodicko-pedagogické centrum, 2010. 52 s.

9. HIRSH, J. 2015. Personality and Creativity. [online] Publ. 2015. [cit. 20.2. 2017]. Dostupné na internete: [http://www.sciencedirect.com/science/article/pii/B9780080970868250241].
10. HOSEINIFAR, J. a kol. 2011. An Investigation of The Relation Between Creativity and Five Factors of Personality In Students. [online] Publ. 2011. [cit. 15.2. 2016]. Dostupné na internete: [http://www.sciencedirect.com/science/article/pii/S1877042811022191].
11. HUNTER, S. a kol. 2007. Climate for Creativity: A Quantitative Review. [online] Publ. 5.12. 2007. [cit. 5.12. 2017]. Dostupné na internete: [http://www.tandfonline.com /doi/abs/10.1080/10400410709336883].
12. HSU, M. 2010. Organizational Innovation Climate and Creative Outcomes: Exploring the Moderating Effect of Time Pressure. [online] Publ. 1.11. 2010. [cit. 5.12 2017]. Dostupné na internete: [https://www.researchgate.net/publication/254301927_Organizational_Innovation_Climate_and_Creative_Outcomes_Exploring_the_Moderating_Effect_of_Time_Pressure].
13. JAISWAL, N. – DHAR, R. 2015. Transformational leadership, innovation climate, creative self-efficacyand employee creativity. [online] Publ. 2015. [cit. 15.11. 2017]. Dostupné na internete: [https://www.academia.edu/15439959/Transformational_leadership_innovation_climate_creative_self-efficacyand_employee_creativity_A_multilevel_study].
14. JURČOVÁ, M. 2002. Súčasné trendy psychológie tvorivosti – smerovanie k integrácii a systému. Československá psychologie, 2002, roč. XLVI, č. 5, s. 385 – 389. ISSN 0009-062X.
15. JURČOVÁ, M. 2009. Tvorivosť v každodennom živote a vo výskume. Bratislava: IRIS, 2009. 265 s. ISBN 978-80-892-5642-6.
16. JURČOVÁ, M. 1984. Torranceho figurálny test tvorivého myslenia. Bratislava: Psychodiagnostické a didaktické testy, 1984.
17. KLOUDOVÁ, J. a kol. 2010. Kreativní ekonomika. Praha: Grada Publishing, 2010. 224 s. ISBN 978-80-247-7345-2.
18. KOLAJOVÁ, L. 2006. Týmová spolupráce. Praha: Grada Publishing, 2006. 112 s. ISBN 978-80-247-6099-5.
19. KNUDSEN, M – COKPEKIN, O. 2011. The efects of firms creatice climate for product and process. [online] Publ. 20.1. 2011. [cit. 20.2. 2016]. Dostupné na internete: [http://www2.druid.dk/conferences/viewpaper.php?id=502554&cf=47].
20. LUKÁŠOVÁ, R. – NOVÝ, I. 2004. Organizační kultura. Praha: Grada Publishing, 2004. 174 s. ISBN 978-80-247-0648-1.
21. Mičková, Z. 2017. Osobnostné črty, podnikavé správanie a motivácia rodiny ako determinanty podnikania. Pracovná a organizačná psychológia, konferencia PpaO, v tlači
22. MIKULÁŠTIK, M. 2010. Tvořivost a inovace v práci manažera. Praha: Grada Publishing, 2010. 208 s. ISBN 978-8
23. ODCHÁZEL, J. 2007. Management a moderní organizování firmy. Praha: Grada Publishing, 2007. 324 s. ISBN 978-80-247-2149-1.
24. PREISER, S.2006. Kreativität. In: Schweizer, Karl (Hg.): Leistung und Leistungsdiagnostik. Heidelberg: Springer Medizinverlag, S. 51 - 67. ISBN 978-3540254591
25. SALBOT, V. 2007. Tvorivosť a škola. Banská Bystrica: UMB, 2007. 88 s. ISBN 978-80- 8083-511-8.
26. ŠPRINGELOVÁ, M. 2012. Správa o meraní sociálnej atmosféry v triede. [online] Publ. 2012. [cit. 25.10. 2017]. Dostupné na internete: [http://www.nucem.sk/documen

ts//45/aktivita_4_1/3__pracovne_stretnutie/Spr%C3%A1va_o_soci%C3%A1lnej_atmosf%C3%A9re_v_triede. pdf].
27. TÓTHOVÁ, M. 2006. Rozvoj tvorivosti. Nitra: PF UKF, 2006. 85 s. ISBN 80-8094-033-9.
28. TUMA, M. 2001. Tvorivé procesy človeka. Banská Bystrica: Úrad priemyselného vlastníctva Slovenskej republiky, 2001. 411 s. ISBN 80-88994-08-X.
29. WEEKS, D. 2014. Creative Climate Questionnaire Details. [online] Publ. 2013. [cit. 18.10. 2017]. Dostupné na internete: [http://www.m1creativity.co.uk/innovationclimate.htm].

Kontaktné údaje

PhDr. Dominika Doktorová PhD.
Univerzita sv. Cyrila a Metoda v Trnave, Filozofická fakulta, Katedra psychológie
Námeste J.Herdu 2, 917 01, Slovenská republika
Email:dominikka.doktorova@gmail.com

BENEFITS AND LIMITATIONS OF THE ALTERNATING CUSTODY

Lucia Bellová, Katarína Özger

Abstract

The aim of the paper is to point out benefits and limitations of the shared /alternating care of children, as well as to present factors confirming or disconfirming the benefits of the system of the alternating childcare. We focused on the advantages and disadvantages of alternating care from the point of view of social workers working at the Office of Labor, Social Affairs and Family and experts working at the court taking decisions on the implementation of the alternating care.

Key words: *Alternating custody. Shared custody. Custody after divorce. Benefits of the alternating custody. Limitations of the alternating custody.*

1 INTRODUCTION

The Alternating child care in Slovak legislation is not legally grounded since 2010, and despite the great expectations, this institute is not used in a comparable way to other countries where alternating personal care is also legally regulated.It is necessary to point out that, as in both the Slovak Republic and the Czech Republic, there no comparative research of children in various forms of care after divorce, compared to many pieces of research conducted in the US. In the Slovak Republic, there is also no research focusing on the advantages and disadvantages/limitations of the alternating custody institution from the point of view of parents. Currently, the use of alternating custody is low- 7,6% in 2016 (but with comparison with 2012, it has increasing tendency). The aim of the paper is to point out benefits and limitations of the shared /alternating care of children, as well as to present factors confirming or disconfirming the benefits of the system of the alternating childcare. We focused on the advantages and disadvantages of alternating care from the point of view of social workers working at the Office of Labor, Social Affairs and Family, the Department of Social Protection and Social Care and other experts.

2 BENEFITS OF THE ALTERNATING CUSTODY

According to Ďurkovič (2015) from the Fathers´League, the NGO defending parental rights of father after the divorce, claims that the advantages of shared custody are as follows: Alternating care keeps both parents close to children and allows both parents to truly educate their children, not only visit or meet them. It is also counter-balances to the socially undesirable absence of fathers in the post-divorce upbringing of children and promotes equality between men and women. It leads also to bigger parental responsibility for children's development, balances the position of parents towards children, and prevents abuse of power of one of them and conflicts resulting of it. Parents learn how to communicate also after the divorce. Bogdan (2015) moreover says that alternating custody shortens the length of litigation because it is assumed that the conflict points between parents will be reduced, for example disputes over alimony[1]. Olejníková (2015), however, underlines that alternating care of children is a benefit and an advantage for a child only if their parents have a unified system of childcare and upbringing, if they have similar views about leisure time, choice of interests, or healthcare solutions. Alternating custody is only beneficial if parents can communicate

[1] Horewer, alimony can be set out also for alternating care

properly and understand that even though their partnership has ended, they are responsible for children´s upbringing.

According to Hurtaj (2015), a fundamental advantage of an alternating custody is maintaining the child's equal contact with both parents. By introducing a shared care institute, it is possible to prevent the abandoned child syndrome which possibly emerges when one parent prevents the child from the contact with the other parent, and the child assumes that the other parent is not willing to take care of him and do not love him.

Prochádzková (2011) agrees with Hurtaj and as the main advantage of shared custody sees the contact of a child with both parents. Persily (2015) discusses the advantages and disadvantages of alternating care and mentions the following benefits:

1. Children may grow under the influence of both parents, both parents are entitled to make legally important decisions and both parents have a legal right to live with children.
2. As both parents participate in the upbringing of a child, they need to cooperate and get along well, the child can function as a neutral ground for parents, whose relationship can be improved or even they can reconcile their partnership.
3.As alternating custody divides responsibilities for both parents, childcare is not as demanding as the exclusive care of one parent.

Smatana and Valachova (2013) see an advantage in the fact that alternating personal care can ease mothers from day to day care and provide them time for their private life and career. Each author sees benefits of alternating custody from a different point of view, but both lawyers, Slovak - Hurtaj, and American - Persily, sees the main benefit of shared custody mainly in the opportunity to grow up with both parents. We can conclude that experts in law mention mainly benefits for parents, while professionals in social work take into consideration mainly child's needs.

3 LIMITATIONS OF THE ALTERNATING CUSTODY

Hurtaj (2015) conclude that alternating care is not suitable if parents live far away from each other. In this case, shared custody can inappropriately affect the child development, especially in connection with its social links and school attendance.If a child attends 2 schools, in certain cases, it can adversely affect the school performance. Alternation of social setting can negatively affect social ties with peers.

Atlanta's lawyer and divorce lawyer, Persily (2015), points out the following limitations:

- as living with both parents can be an advantage, it can also be a disadvantage in some cases- It is very difficult for a child to get used to more environments. Persily also agrees with social worker Olejníková claiming that especially younger children need stability and one stable environment.
- The disadvantage is also seen in the fact that alternating care is not suitable for every family and for all parents.The persistent contact of divorced spouses can in some cases be something impossible and can cause further quarrels in important decisions concerning their child.
- alternating care should primarily take into consideration the needs of the child and divide them equally between the two parents. However, there are parents who want to avoid childcare obligations.

The only limitation of alternating care that Bogdan sees is the personality of parents or one of them, as the parent who wants to get the exclusive care can underestimate the other parent at a court hearing. Like Persily (2015) and Olejníková (2015), Prochadzková (2011) also sees a disadvantage in the changing environment. She points out that in the Czech Republic and the Slovak Republic, alternating custody works in a different way than in the US and France, although these countries served as an inspiration while implementing the shared custody in the Central European countries. In the US and France, it is common, that a minor child lives

permanently in particular house and parents rotate. He adds that this method of rotation is not only uncommon in the Czech Republic but also often impossible. We can conclude that the situation is similar in Slovakia. Also, we agree on above-mentioned limitations of alternating care.

4 INEVITABLE FACTORS FOR IMPLEMENTATION OF THE ALTERNATING CUSTODY

In our research, we have focused on identifying positive factors which determine the succesful implementation of the alternating care. Because of the qualitative nature of the research, the method of the interview with social workers and the judge was used to collect the date. First we ensured transcription of interviews with all participants, and then we coded common characters in each statement, which made the analyses of the results possible.

While interpretation of the data, we found out that the testimonies of all participants agree that the most important factor positively influencing alternating care is the MUTUAL SPONTANEOUS COMMUNICATION between parents.

It is also inevitable, as stated by all participants working at the Office of Labor, Social Affairs and Family in Liptovský Mikuláš to have a POSITIVE RELATIONSHIP with a partner (former husband). It is necessary to build a quality and positive relationship between parents, divorcing partners. One participant adds that *"parents should try the best to accept each other and learn to accept the other's opinions. I also think that for the proper functioning of the alternating care it is inevitable to have settled property relations among themselves "*. The third factor,determining the smooth functioning of alternating care is the AGREEMENT between parents. If parents agree that alternating care is beneficial for their child, and they are both willing to ensure the proper functioning of shared care, it is a great benefit for the child. According to one participant, *alternating personal care is functioning when parents do everything for childrens´ happiness and do not forget that even after the divorce they are still parents.* Another participant agrees and adds that *parents need to make compromises in the child's interest and need be able to come to an agreement*. It is also necessary to clarify and agree on specific the parenting style. A participant working at court in Liptovský Mikuláš adds that *„it is very important to show the true interest in the alternating care, which should be motivated only by the love for the child.“*Another factor that positively determines alternating care and all participants agreed on is THE INTEREST OF THE CHILD. According to the participant, it is necessary to assess "*whether the child is prepared for alternating care, he does not reject. The child's interest is the most important. It is also inevitable to take into account the current social functioning of the child"*. A participant working at the District Court in Liptovský Mikuláš adds that "*the child's opinion needs to be heard according to his age"*.

One participant stated that she also considers A SHORT DISTANCE between houses of parents as a positive factor, taking into consideration childrens´ social environment.A participant working at the District Court in Liptovský Mikuláš stated as one of the factors supporting alternating custody is POSITIVE FEATURES OF PARENTS. It also states that it is very necessary for a parent to be capable of taking care of a minor child and comply with the MATERIAL CONDITIONS, for example, suitable housing.

5 FACTORS LIMITATING ALTERNATING CUSTODY

Research has shown different factors limiting alternating care. The factor, which all participants agreed on in stated as NO COMMUNICATION BETWEEN PARENTS, which is a "serious cause for disagreement". The other participant,working at the Office of Labor, Social Affairs and Family in Liptovský Mikuláš said she was always trying to lead parents to reconcile and accept each other.

Other factors that do not support alternating care can be summed up as INTEREST OF CHILD NOT TAKEN INTO CONSIDERATION. A participant working at the Office of Labor, Social Affairs and Family in Liptovský Mikuláš said that *"a parent often pursues his or her interest, which leads to the struggle between parents"*. A participant working at the district court in Liptovský Mikulaš adds that if the wish to implement alternating care id not motivatedy by the love for the child, but, for example, by the revenge against the other parent ot the pressure of old parents, the court should not approve the implementation of the shared care. Two of the participants mentioned that some parents are interested in the alternating care because they do not want to pay alimony. FINANCIAL REASON cannot be a justifiable reason for alternating custody.

Among the other negative factors, the participant working at the Office of Labor, Social Affairs and Family also included SOCIAL-PATHOLOGICAL ASPECTS. INABILITY TO CONCLUDE ON AGREEMENT is also among the factors limiting alternating care agreed by two participants. For successful implementation of shared custody is necessary that *"parents are aware even though their marriage has ended, they are still parents of their children and should act according to that fact."* Three participants stated that UNREADINESS OF CHILDREN for alternating care and its refusal is also one of the negative factors limiting its implementation. The last factor, which can limit alternating care is LONG-DISTANCE BETWEEN HOUSES of parents, agreed by all the participants or research. Although there is no legal restriction that prevent decisions in favour of alternating care, parents should realize, that in case of long-distance between houses, child will probably attend 2 different schools, which can cause problems in school performence.One participant stated that :,, *If a freshman in a primary school in the first school learn to write the letter B and in the second school during that period they already learn the letter D, it can cause difficulties. The problem also arises if the letter D is taken in the first school and the child comes to a second school for a certain period, where they still take only the letter B so the child can get bored. "*

6 CONCLUSION

The aim of our paper was to point out benefits and limitations of alternating/shared custody/care, as well as to find out what factors support and vice versa make the implementation of alternating care hard or even impossible. In the first two chapters, we looked at specific theoretical advantages and constraints/ disadvantages that we compared from the perspective of several experts. In the empirical part of the paper, we focused on factors which make alternating care possible and in the last chapter, on factors which make shared custody hard to implement.

We summed up the research results in the following table.

Table 1.

Factors supporting alternating care	**Factors restraining alternating care**
Mutual communication	No communication
Positive mutual relationship	Unreadiness of children
Child´interest first	Interest of child not taken into consideration
Mutual agreement	Non-agreement
Positive features of parents	Socio-pathological aspects
Material conditions	Financial reasons
Small distance between houses	Long distance between houses

Source: by authors

Sources

1. BOGDAN, E. Striedavá starostlivosť o deti - stav a otázky. In *Striedavá osobná starostlivosť. Zborník odborných materiálov, rád, informácií a praktických skúseností o spoločnej porozchodovej starostlivosti o deti*. [online]. [cit. 2017. 10. 21.]. Dostupné na: <http://www.ligaotcov.sk/cache/documents/KNIHA-striedavka--Liga-otcov.pdf>.
2. ĎURKOVIČ, L. 2015. Povinná striedavá osobná starostlivosť oslobodí deti od sporov rodičov. In *Striedavá osobná starostlivosť. Zborník odborných materiálov, rád, informácií a praktických skúseností o spoločnej porozchodovej starostlivosti o deti*. [online]. [cit. 2017. 11. 28.]. Dostupné na: <http://www.ligaotcov.sk/cache/documents/KNIHA-striedavka--Liga-otcov.pdf>.
3. HURTAJ, M. *Zverenie mal. dieťaťa do striedavej osobnej starostlivosti rodičov*. [online]. [cit. 2017. 10. 21.]. Dostupné na: <http://www.hurtaj.sk/zverenie-mal-dietata.html>.
4. The Office of Labor, Social Affairs and Family - personal communication
5. PERSILY, S. 2015. Joint Child Custody: Do the Advantages Outweigh the Disadvantages?. [online]. [cit. 2017. 11. 20.]. Dostupné na: <http://www.divorcenet.com/resources/divorce-and-children/joint-child-custody-advantages-disadvantages.htm>.
6. PROCHÁDZKOVÁ, J. 2011. Porozvodová péče o děti. In Rodiče, děti a jejich problémy. Sborník studií. Praha: Sdružení Linka bezpečí. 2011. ISBN 978-80-904920-1-1, s. 59-79.
7. SMATANOVÁ, L – VALACHOVÁ, I. 2014. *Inštitút striedavej osobnej starostlivosti o dieťa.* [online]. [cit. 2016. 11. 10.]. Dostupné na: <http://www.epi.sk/odborny-clanok/Institut-striedavej-osobnej-starostlivosti-o-dieta.htm>.

Contact

Mgr. Lucia Bellová
Katolícka univerzita v Ružomberku,
Pedagogická fakulta, Katedra sociálnej práce,
Hrabovská cesta 1,
Ružomberok,03401
email: bellova.lucia@tuw.eu

Mgr. Katarína Özger
Katolícka univerzita v Ružomberku,
Pedagogická fakulta, Katedra sociálnej práce,
Hrabovská cesta 1,
Ružomberok,03401
email: gabikova.katarina@gmail.com

FENOMÉN DOBROVOĽNÍCTVA V PREGRADUÁLNEJ PRÍPRAVE SOCIÁLNYCH PRACOVNÍKOV SERVICE LEARNING

THE PHENOMENON OF VOLUNTEERING IN THE PRE-GRADUATE PREPARATION OF SOCIAL WORKERS SERVICE-LEARNING

Lucia Gregová

Abstrakt

Fenomén dobrovoľníctva a sociálna práca sú nerozlučne späté vo filozofických, kultúrnych aspektoch. Dobrovoľníctvu sa v súčasnosti so zmenami, novými trendmi, ktoré prináša modernizácia a globalizácia, ale aj v súvislosti s tzv. úpadkom hodnôt v spoločnosti venuje zvýšená pozornosť. Odborníci z oblasti sociálnej práce podporujú myšlienku dobrovoľníctva na vysokých školách. Množstvo konferencií a projektov dokazuje, že tento koncept v pregraduálnej príprave sociálnych pracovníkov je vitálny. Študenti sociálnej práce disponujú teoretickými poznatkami, ktoré sú potrebné na výkon dobrovoľníckej činností. Na základe štúdia odborných publikácii, výskumných štúdii, ale aj na základe vlastných skúseností poznamenávame, že dobrovoľníctvo je jednou z možností ako reagovať na požiadavky profesionalizácie v sociálnej práci. Je to spôsob budovania si identity, hodnôt a získanie praktických skúsenosti na výkon budúceho povolania študentov sociálnej práce. Príspevok prezentuje výskumné zistenia výskumu realizovaného na Filozofickej fakulte Prešovskej univerzity v Prešove v roku 2016.

Kľúčové slová: *dobrovoľníctvo, sociálna práca, sociálny pracovník, pregraduálna príprava, service learning*

Abstract

The phenomenon of volunteering and social work is inextricably linked to philosophical, cultural aspects. Volunteering is currently with changes, new trends brought about by modernization and globalization, but also in the context of the decline of values in the society dedicated extra attention. Social work professionals support the idea of volunteering at universities. A number of conferences and projects show that this concept in the undergraduate training of social workers is vital. Students of social work have the theoretical knowledge they need to carry out volunteer activities. Based on the study of scientific publications, research studies, but also on own experience, we note that volunteering is one way of responding to the demands of professionalisation in social work. It is a way of building identity, values and gaining practical experience for the performance of the future profession for students of social work. The article presents the research findings of the research realized at the Faculty of Philosophy of Prešov University in Prešov in 2016.

Keywords: *volunteering, social work, social worker, undergraduate training, service learning*

1 ÚVOD

Modernizačné a globalizačné tendencie ovplyvňujú sociálnu prácu a vzdelávanie v sociálnej práci. Od študentov sociálnej práce sa očakáva, že budú erudovaným odborníkmi, ktorí vedia implementovať svoje teoretické vedomosti, poznatky do praxe a evaluovať vlastnú prax.

Vysokoškolskí študenti sociálnej práce často participujú na dobrovoľníckych aktivitách. Študenti získavajú prednostne v teoretickej príprave na univerzitách, odborné poznatky, zručnosti potrebné pre výkon dobrovoľníckej činnosti v pregraduálnej príprave na univerzitách. Dobrovoľníctvo pomáha študentom v praktickej rovine rozvíjať kľúčové kompetencie, praktické skúsenosti, zvyšuje ich šancu zamestnať sa a buduje zo študentov osobnosti, ktoré vnímajú svoje štúdium sociálnej práce ako celoživotné poslanie.
Univerzity na Slovensku stále viac podporujú svojich študentov k participácii na dobrovoľníckych aktivitách. No tento trend nie je taký výrazný ako v západných krajinách. Preto pokladáme za prínosné a dôležité z hľadiska zvýšenia kvality pregraduálnej prípravy sociálnych pracovníkov a prínosov pre spoločnosť, študentov sociálnej práce ale aj pre univerzitu, analyzovať možnosti uplatnenia dobrovoľníctva na univerzitách na Slovensku. Cieľom príspevku je analýza dobrovoľníctva a service learningu. Východiskom analýzy sú empirické zistenia z výskumu realizovaného v roku 2016 na Prešovskej univerzite v Prešove.

2 FENOMÉN UNIVERZITNÉHO DOBROVOĽNÍCTVA

Dobrovoľníctvo je fenomén, ktorý nachádza svoje uplatnenie v rámci pregraduálnej prípravy sociálnych pracovníkov. Zároveň je platformou rozvoja silných stránok študentov a prínosom pre štúdium sociálnej práce v praktickej a teoretickej rovine. Vysoké školy stoja pred neľahkou úlohu vysporiadať sa s novými podmienkami, ktoré prináša postmoderná doba a s požiadavkou rozvíjať koncept vzdelávania, ktorý bude reflektovať súčasne zmeny v teoretickej príprave, s dôrazom na kvalitnú praktickú prípravu, ktorá by bolo bazálnym predpokladom profesionálnych sociálnych pracovníkov schopných čeliť požiadavkám doby.
V súčasnosti je pertraktovanou témou kvalita pregraduálnej prípravy sociálnych pracovníkov s dôrazom na ich praktickú prípravu. Jednou z možností ako zabezpečiť rozvoj praktických zručností študentov sociálnej práce a podporiť kvalitu vzdelávania v tejto oblasti je využívanie konceptu dobrovoľníctva.
Podľa Brozmanovej Gregorovej (2012) dobrovoľníctvo študentov sociálnej práce možno považovať za doplnok, ale po splnení určitých podmienok aj za špecifickú formu ich praktickej prípravy. Podpora prepojenia dobrovoľníckej skúsenosti študentov sociálnej práce v ich pregraduálnej príprave prostredníctvom reflexie ich skúsenosti je veľmi dôležitá. Ako uvádza Matulayová (2012) jednou z vhodných možností je uznanie dobrovoľníckej práce študentov ako náhrady za inú formu praxe, pričom rozsah môže závisieť od charakteru a dĺžky vykonávaných dobrovoľníckych činností. Dobrovoľníctvo sa v rámci pregraduálnej prípravy môže stať neoddeliteľnou súčasťou každodenného života študentov sociálnej práce.
Ak študenti nemali pred štúdiom na univerzite možnosť angažovať sa v dobrovoľníctve, práve štúdium sociálnej práce im ponúka príležitosť zapájať sa do dobrovoľníckych činností a získať nové skúseností. Mydlíková et al. (2002, s. 42) uvádza, že *„zavedením predmetu dobrovoľníctvo do učebných osnov študentov sociálnej práce sa dobrovoľníctvo dostáva v modernom poňatí tejto vednej disciplíny do povedomia mladých odborníkov ako neoddeliteľná súčasť sociálnej práce na Slovensku“*.
Výskumné zistenia z realizovaného výskumu na Prešovskej univerzite zamerané na rozsah a intenzitu dobrovoľníctva nám poskytli možnosť vytvoriť si reálny obraz o stave formálneho dobrovoľníctva v pregraduálnej príprave študentov Filozofickej fakulty, Prešovskej univerzity v Prešove. Z výskumného súboru 847 respondentov sa do formálneho dobrovoľníctva v posledných 12 mesiacoch zapájalo 201 študentov Filozofickej fakulty, Prešovskej univerzity v Prešove, čo predstavuje 23,7%.
Podľa výskumných zistení môžeme konštatovať, že ženy sa zapájajú do formálneho dobrovoľníctva častejšie ako muži. Tieto výsledky sú porovnateľnými s inými výskumnými zisteniami (Jones 2004). Rozsah formálneho dobrovoľníctva na Filozofickej fakulte, Prešovskej univerzity v Prešove a taktiež aj na Inštitúte edukológie a sociálnej práce,

Filozofickej fakulty, Prešovskej univerzity v Prešove v porovnaní s rozsahom formálneho dobrovoľníctva na univerzitách v Kanade, Austrálii, Anglicku, Amerike a Novom Zélande (Smith et al. 2010) je výrazne nižší. V komparácii výsledkov výskumu v oblasti rozsahu formálneho dobrovoľníctva s výskumnými zisteniami z Londýnskych univerzít (Malmersjo-Paine 2006), je záujem vysokoškolských študentov podobný. V porovnaní s tradíciou dobrovoľníctva v zahraničí, trendom zakladať univerzitné dobrovoľnícke centrá, podporovať univerzitných dobrovoľníkov (Smith et al. 2010) a využívať v učebných osnovách vyučovaciu koncepciu service learning (Eyler et al. 2001) je rozsah formálneho dobrovoľníctva na Filozofickej fakulte, Prešovskej univerzity príjemným prekvapením. Môžeme teda konštatovať, že študenti Filozofickej fakulty, Prešovskej univerzity v Prešove sa aktívne zapájajú do formálneho dobrovoľníctva. V tejto oblasti vidíme v budúcnosti potenciál na signifikantný nárast.
Z hľadiska frekvencie prevažujú na Filozofickej fakulte, Prešovskej univerzity v Prešove, nepravidelní dobrovoľníci, čo je podľa výskumov najviac zastúpený typ dobrovoľníctva medzi vysokoškolskými študentmi (Hustinx et al. 2008). Najviac študentov Filozofickej fakulty, Prešovskej univerzity v Prešove sa zapája do formálneho dobrovoľníctva aspoň 1x za 3 mesiace, čo predstavuje 36,5%. Najmenšie zastúpenie sme zistili v rámci možnosti, zapájať sa v dobrovoľníctve každý týždeň a to u dvoch respondentov, čo predstavuje 1%.
Využitie konceptu dobrovoľníctva by malo byť pre univerzity prínosom a jedným z faktorov zvyšovania kvality pregraduálnej prípravy sociálnych pracovníkov. Nejde len o utilitaristický pohľad, ale o prehĺbenie vzťahu študentov k teoretickej príprave pomocou praktickej skúsenosti s využívaním konceptu dobrovoľníctva. Využitie fenoménu dobrovoľníctva v pregraduálnej príprave by mohlo podnietiť záujem študentov v nadobudnutí nových vedomostí, v kultivácii praktických zručností. Výsledkom uvedenej formy vzdelávania by mali byť erudovaní sociálni pracovníci, ktorí využívajú svoje teoretické vedomosti implementovaním v praxi.

2.1 Prínosy dobrovoľníctva v pregraduálnej príprave sociálnych pracovníkov

Dobrovoľníctvo ako súčasť pregraduálnej prípravy študentov sociálnej práce môže byť cestou ako budovať partnerstvá s miestnymi neziskovými organizáciami, predstavuje prínos pre organizáciu, klientov, pre univerzitu a študentov sociálnej práce. Trendy ako profesionalizácia, flexibilita a záujem študentov o príležitostné dobrovoľníctvo by nemali byť vnímané ako prekážky, ale ako výzvy, prínosy pre rozvoj a posilnenie dobrovoľníctva na vysokých školách. Prioritou pre vysoké školy v rámci naplnenie novej role, tzv. tretej role (Matulayová 2014; Gunasekara 2004) by mala byť spolupráca univerzity s neziskovými organizáciami a zameranie sa na rozvoj praktickej prípravy študentov postavených na pevných základoch teórie.
Sociálna práca je platformou uplatnenia konceptu dobrovoľníctva v rámci pregraduálnej prípravy sociálnych pracovníkov. Sociálna práca v 21.storočí sa bude musieť vyrovnať s novými spoločenskými zmenami a reagovať na požiadavky praxe, ktorou sú erudovaní sociálni pracovníci, ktorí implementujú teoretické poznatky do praxe a kultivujú svoje schopnosti a eliminujú stereotypy. Mnohé zahraničné výskumné zistenia potvrdzujú, že dobrovoľníctvo na univerzitách má prínos v kvalite vzdelávania vysokoškolských študentov (Smith et al. 2010; Stewart 2012; Bowman-Waite 2003). Ide najmä o pocit vlastného uspokojenia, získanie sociálnych kontaktov (Malmersjo-Paine 2006) a profesijné prínosy, ktoré častejšie uvádzajú pravidelní dobrovoľníci, ktorí sa zapájajú do formálneho dobrovoľníctva týždenne alebo mesačne (Meier-Stutzer 2004), čo sa potvrdilo aj v našom výskume. Okrem uvedených prínosov sa vo výskumoch prezentujú aj zlepšenie manažérskych a vodcovských schopností (Jones 2000), ktoré náš výskum nepotvrdil.

Študenti Inštitútu edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove mali vybrať jednu z možností, či pre nich dobrovoľnícka skúsenosť je alebo nie je prínosom pre štúdium sociálnej práce. Zo základného súboru 28 študentov Inštitútu edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove, ktorí sú dobrovoľníkmi je pre 25 študentov ich dobrovoľnícka skúsenosť prínosom pre štúdium sociálnej práce, čo predstavuje 89,3%. Pre 3 študentov ich dobrovoľnícka skúsenosť nie je prínosom pre štúdium sociálnej práce, čo predstavuje 10,7%. Za najväčší prínos bolo uvádzané získanie praktických zručností a ich následne prepájanie s teoretickými poznatkami, čo predstavuje 44% študentov sociálnej práce. Ďalšie oblasti ako zlepšenie komunikačných zručnosti, osobný a profesijný rozvoj, všeobecný rozhľad v oblasti sociálnej práce boli 3 respondentmi identifikované v rovnakom zastúpení, čo je 12%. Oblasť spoznania kultúry a systému fungovania organizácie bola 2 respondentmi označená ako najmenej prínosná pre štúdium sociálnej práce, čo predstavuje 8%.

Je dôležité zamerať sa na tieto výskumné zistenia, na základe ktorých môžeme konštatovať, že študenti dobrovoľníctvo vnímajú viac v rovine osobných prínosov, ktoré sú zamerané na rozvoj ich silných stránok, získanie nových skúsenosti a ako priestor na nadviazanie nových kontaktov. Na základe výskumov (Spera 2013; Antoni 2009; Braime-Ruohonen 2011) konštatujeme, že dobrovoľníctvo je jednou z možností uplatniť sa na trhu práce, získať pracovné návyky a kontakty s budúcimi potenciálnymi zamestnávateľmi. V zahraničí nie je ničím neobvyklým, že študent po ukončení štúdia pracuje v organizácii, v ktorej sa počas svojho štúdia angažoval ako dobrovoľník. Dobrovoľníctvo na Inštitúte edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity. v Prešove je podporované v teoretickej rovine ako súčasť viacerých predmetov. Vysokoškolskí pedagógovia v rámci výučby svojho predmetu podporujú koncept dobrovoľníctva prostredníctvom hodnôt, teoretických konceptov a teórii sociálnej práce, na ktoré sa vo svojom predmete zameriavajú. Rovnako ako v prípade zahraničia sa vysokoškolskí pedagógovia zameriavajú na podporu občianskej zodpovednosti, resp. občianskej participácie, ktorý je základným konceptom filozofie service learning (Brandes-Randall 2011).

Ako uvádza Hadži Miceva (2008), dobrovoľníctvo z hľadiska svojich prínosov pre spoločnosť zvyšuje účasť občanov na spoločenskom živote, pomáha budovať miestne vzťahy a vytvára pocit zodpovednosti za riešenie problémov danej komunity. Uvedené tvrdenie prezentuje aj Wu (2011) v rámci realizovaného výskumu Social Impact of Volunteerism.

Realizovaný výskum vo Veľkej Británii dokazuje, že dobrovoľníctvo okrem riešenia problémov v komunite môže zvýšiť aj pocit šťastia v komunite (Volunteering 'boosts community happiness' 2004). Dobrovoľníctvo podporuje ľudské hodnoty, na základe čoho sú ľudia v daných komunitách šťastnejší. Dôležitú úlohu tu zohráva orientácia na ľudské hodnoty a nie ekonomická rovina daného štátu. Podpora dobrých vzťahov v komunite prostredníctvom dobrovoľníkov vedie k podpore verejného blaha (Helliwell-Layard-Sachs 2015).

Mnohé výskumy (Smith et al. 2010; Edwards-Mooney-Heald 2001; Wu 2001) dokazujú, že dobrovoľníctvo vysokoškolských študentov má svoj nesporný význam. Zvyšuje sebavedomie študentov, možnosť uplatnenia sa na trhu práce, podporuje občiansku zodpovednosť a rozvoj teoretických poznatkov v praxi. Dobrovoľníctvo má potenciál začať v pregraduálnej príprave sociálnych pracovníkov novú etapu vzťahu. Ide o vzťah vzájomnej spolupráce, podpory, zvyšovania kompetencií a spoločenskej prestíže nielen sociálnej práce ale aj univerzity, ktorá podporí využívanie fenoménu dobrovoľníctva.

3 UNIVERZITNÉ DOBROVOĽNÍCTVO

Analýza dobrovoľníctva ako multidimenzionálneho javu je predmetom skúmania viacerých vedných disciplín. Zapájanie dobrovoľníkov do aktivít smerujúcich k prospechu, pomoci

komunitám a podpore partnerstva medzi komunitou a univerzitami je základnou myšlienkou univerzitných dobrovoľníckych centier.
Ako uvádza University Volunteer Service Policy of Nova Southeastern University (2015), univerzitní dobrovoľníci sú jedinci, ktorí vykonávajú služby priamo súvisiace s univerzitou, v jej vlastný prospech a na podporu jej charitatívnej a humanitárnej služby. Status univerzitný dobrovoľník získava jedinec, ktorý poskytuje svoje služby v súlade s podmienkami politiky univerzitného dobrovoľníctva.
V slovenských a českých podmienkach je možné univerzitných dobrovoľníkov chápať ako študentov, ktorí sa angažujú ako dobrovoľníci v aktivitách a projektoch, ktoré organizujú samotné univerzity. Dobrovoľníctvo týchto študentov nie je centrálne organizované napr. univerzitným dobrovoľníckym centrom. Z vlastnej skúsenosti vieme, že pre jednotlivé organizácie nie je jednoduché realizovať nábor pre študentov univerzity, a to najmä z časových dôvodov.
Vysokoškolskí študenti sú skupinou, ktorá plní významnú rolu v rámci rozvoja a propagácie dobrovoľníctva a dobrovoľníckych programov nielen na miestnej ale aj medzinárodnej či globálnej úrovni. Výskumná štúdia McCabe et al. (2007) priniesla zaujímavé empirické zistenia, že dobrovoľníkmi z radov vysokých škôl sú prevažne študenti sociálnej práce (44%) a psychológie (43%) z celkového počtu vysokoškolských dobrovoľníkov. Výsledky tohto výskumu potvrdzujú úzke prepojenie sociálnej práce a dobrovoľníctva.
Jedným z faktorov ovplyvňujúcich zapájanie sa do dobrovoľníctva je motivácia študentov. Ako potvrdili výsledky výskumu existuje dichotómia medzi altruistickými a sociálnymi faktormi, ako ich popísali Musick a Wilson (2007). Potvrdili sa aj nasledujúce výskumné zistenie, že existuje signifikantný rozdiel medzi frekvenciou formálneho dobrovoľníctva a motiváciou (Holdsworth-Quinn 2010) v našom prípade konkrétne medzi sociálnymi motívmi a frekvenciou zapájania sa študentov Filozofickej fakulty, Prešovskej univerzity v Prešove do formálneho dobrovoľníctva. Študentov, ktorí sú dobrovoľníkmi týždenne alebo mesačne viac motivujú sociálne motívy ako študentov, ktorí sú dobrovoľníkmi 1x alebo 2x ročne. Okrem uvedených zistení, študentov Inštitútu edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove najviac motivuje rozvoj ich silných stránok a praktických zručností. Tieto výskumné zistenia potvrdzuje aj Jones (2000), keď ako najdôležitejší motív u študentov uvádza samotnú pomoc a vieru v zmenu.
Vo výskume sme sa zamerali aj na bariéry na strane študentov, ktoré im bránia v zapojení sa do formálneho dobrovoľníctva. Rôzne výskumy uvádzajú ako najčastejšiu bariéru u študentov na univerzitách nedostatok voľného času (Braime-Russell-Holdsworth 2010; Malmersjo-Paine 2006). Táto bariéra sa potvrdila ako najzávažnejšia aj v našom výskume.
Z doterajších úvah vyplýva, že podpora konceptu dobrovoľníctva a možnosti jeho využitia u vysokoškolských študentov sociálnej práce má svoj zmysel. Dobrovoľníctvo na univerzitách poskytuje študentom priestor na sebarealizáciu a rozvoj teoretických poznatkov nadobudnutých štúdium. Žiada sa vysloviť otázku, či univerzity na Slovensku využijú potenciál študentov a akým spôsobom budú motivovať svojich študentov k zapájaniu sa do dobrovoľníctva. Ako vieme, je to dobrovoľná činnosť, preto je potrebné propagovať dobrovoľníctvo na univerzitách z hľadiska jeho prínosov a rozvíjať spoluprácu s miestnymi organizáciami. Pretože len efektívnou spoluprácou všetkých aktérov dosiahneme žiadúci efekt.

4 SERVICE LEARNING

Jednou z podôb univerzitného dobrovoľníctva je vyučovacia koncepcia service learning. Táto koncepcia podporuje koncept tretej role vysokých škôl. V kontexte školy a iných vzdelávacích inštitúcii môže byť service learning zadefinovaný ako (Kaye 2010, s. 9) *„vyučovacia metóda založená na výskume, kde sa vzdelávanie v pregraduálnej príprave*

aplikuje pomocou činností, ktoré riešia potreby autentickej komunity v procese, ktorý umožňuje študentom byť iniciátormi rôznych zmien v spoločnosti. Zároveň im poskytuje časovú štruktúru k reflexiám o skúsenostiach a získaných zručnostiach v rámci service learningu''.

Dôležitá črta service learningu je obsiahnutá v jeho cieli, teda pomáhanie každému jednotlivcovi, skupine a organizácii so zapojením hrania roly učiteľa a študenta. Service learning môže byť súčasťou rôznych kurzov v rôznych akademických odboroch, od umenia až po biológiu, antropológiu, ekonómiu a sociálnu prácu. Nie je to len možnosť ako pomôcť iným, ale ako pomôcť aj samému sebe, rozvoju uvedomovania si vlastnej efektivity, osobnej identifikácie sa s cieľom sociálnej práce, duchovnému rastu a morálneho rozvoja. Slúži aj k prieskumu študentov v rámci budúceho uplatnenia na trhu práce. Je to možnosť nečakať na niekoho kto vyrieši problém, ale urobiť kroky, vlastné rozhodnutia, ktoré pomôžu riešiť sociálne problémy v súčasnosti (Guide to Service learning colleges and universities, 2009). Môžeme konštatovať, že service learning prináša študentom iný rozmer ako dobrovoľníctvo. Neprináša len praktické skúsenosti, ale najmä zlepšenie akademických výsledkov a rozvoj akademických znalostí.

Organizácie sú dôležitým pilierom v praktickej príprave sociálnych pracovníkov. Ponúkajú študentom možnosť overiť si svoje teoretické znalosti v praxi, zlepšiť svoje praktické zručnosti a získať nové skúsenosti. Organizácie dlhodobo a pravidelne spolupracujúce s Inštitútom edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove vnímajú študentov sociálnej práce ako prínos pre organizáciu, najmä z hľadiska energie, inovatívnych nápadov a ako motiváciu a pozitívne vzory pre klientov.

Výskumný súbor tvorili 3 organizácie. S Inštitútom edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove spolupracujú organizácie rozlične dlhé časové obdobie. V jednom prípade je to obdobie viac ako 3 rokov, v druhom prípade viac ako 5 rokov a v poslednom prípade ide o spoluprácu v trvaní 11 rokov.

Z hľadiska spolupráce bola najčastejšou formou účasť organizácii na akciách, ktoré realizuje Inštitút edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove ako napr. prednášky, konferencie, workshopy. Ďalšou z oblastí spolupráce boli študentské exkurzie v organizáciách, študentská prax a dobrovoľníctvo študentov sociálnej práce.

Spojenie troch spomínaných aktérov v rámci uplatňovania konceptu dobrovoľníctva, teda univerzity, študentov a organizácii je filozofiou vyučovacej koncepcie service learning (Eyler et al, 2001; Koliba et al. 2006). Service learning v sebe kombinuje prvky učenia a služby, je to tzv. učenie službou. Študenti Inštitútu edukológie a sociálnej práce majú počas svojho štúdia možnosť vybrať si service learning z ponuky povinne voliteľných predmetov. Záujem študentov Filozofickej fakulty, Prešovskej univerzity v Prešove bol výrazný a jeho výsledky je možné komparovať s výsledkami dotazníkového prieskumu na Univerzite Mateja Bela (Brozmanová Gregorová 2014). Záujem študentov bol v rovnakej miere vysoký. Záujem o tento predmet mali vo väčšej miere študenti, ktorí sa za posledných 12 mesiacov zapojili do dobrovoľníctva, súvisí to s poznatkami a skúsenosťami získanými zapájaním sa do dobrovoľníctva.

4.1 Prínosy service learningu pre vysokoškolských študentov

Na analýzu prínosov service learningu je potrebné porozumieť, ako to špecifikuje Celio et al. (2011) kľúčovým cieľom, ktoré chceme zavedením service learningu dosiahnuť. Prvým cieľom by malo byť zladenie akademických osnov s vyučovacou koncepciou service learning, druhým podpora zo strany vysokoškolských pedagógov pri riešení problémov komunity a realizácii projektov samotnými študentami. K tretiemu cieľu autor zaraďuje rozvoj komunitných partnerstiev. Ak vieme, aké ciele chceme prostredníctvom vyučovacej koncepcie service learning dosiahnuť, je pre nás ľahšie zhodnotiť dosiahnutie, resp.

nedosiahnutie vytýčených cieľov. Na základe toho môžeme merať aj prínosy service learningu.
Service learning má mnoho prínosov pre študentov, ako učenie sa prostredníctvom skúsenosti, zapojenie sa do procesu riešenia sociálnych problémov, posilňovanie občianstva cez sociálnu zodpovednosť (Slavkin 2010). Pozitívne prínosy sú zrejmé aj v oblastiach ako občianska zodpovednosť (Enfield-Collins 2008; Meyers 2009; Fiske 2002), kariérny rozvoj (Warren 2012) a osobný rozvoj (Smith et al. 2010).
V porovnaní s uvedenými výsledkami výskumov študenti Inštitútu edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove hodnotili predmet service learning kladne, najmä z hľadiska osobných prínosov v oblasti rozvoja komunikačných zručností, v podpore sebadôvery, trpezlivosti a zodpovednosti. Myslíme si, že by bolo potrebné, aby si študenti viac uvedomovali podstatu service learning a vnímali ho ako možnosť učiť sa službou, ale zároveň pomôcť organizácii s riešením reálnych a akútnych potrieb komunity, pomáhať zvyšovať status univerzity, podporovať spoluprácu s organizáciami a univerzitou a reflektovať spoločenské zmeny v praxi, na ktoré môžu priamo a efektívne reagovať. Študent sociálnej práce by mal byť v súčasnej dobe profesionálom, ktorý počas svojho štúdia využíva možnosti na zlepšenie svojich teoretických vedomosti a svojich silných stránok
Warren (2012) nadväzujúc na uvedené myšlienky uvádza ďalšie prínosy zavedenia service learningu do učebných osnov v rámci pregraduálnej prípravy študentov, akými sú posilňovanie väzieb medzi študentami a vysokoškolskými pedagógmi. Študenti sa cítia viac spojení s univerzitou, zodpovední za jej propagáciu a posilnenie statusu.
Nadviazanie kontaktov, mohli by sme povedať určitých vzťahov s vysokoškolskými pedagógmi má svoj význam aj z hľadiska získania nových pohľadov na určité situácie, porozumeniu sociálnej situácii a zároveň je to možnosť ako zlepšiť svoje poznatky a motivovať seba samého v osobnom rozvoji. Táto spolupráca má evidentný význam aj ako to uvádza Bellner a Pomery (2005) v uznaní vlastného úspechu študentov vysokoškolskými pedagógmi. Je to jedna z možností ako motivovať študentov k ďalšej aktivite v rámci service learningu.
Prostredníctvom service learningu je možné rozvíjať vedomosti, profesionálne zručnosti študentov sociálnej práce a zlepšovať ich akademické výsledky. Jedným z prínosov pre študentov je aj podpora sebavedomia, profesionálny rast a osobný rozvoj. Mohlo by sa zdať, že service learning a dobrovoľníctvo sú totožné koncepty. Je dôležité poznamenať, že service learning obsahuje prvky dobrovoľníctva, avšak zameranie dobrovoľníctva a service learningu ako súčasť pregradálnej prípravy sociálnych pracovníkov je odlišné.

Na základe výskumných zistení konštatujeme, že dobrovoľníctvo má svoju opodstatnenosť a tendenciu stať sa v budúcnosti integrálnou súčasťou kvalitnej pregraduálnej prípravy sociálnych pracovníkov na Inštitúte edukológie a sociálnej práce, Filozofickej fakulty, Prešovskej univerzity v Prešove.

Použitá literatura

1. ANTONI DEGLI, G., 2009. Intrinsic vs. Extrinsic Motivations to Volunteer and Social Capital Formation. In: Kyklos. Roč. 62, č. 3, s. 359-370. ISSN 1467-6435.
2. BELLNER, M., POMERY, J., 2005. Sevice learning. Intercommunity and Interdisciplinary explorations. Indianapolis: University of Indianapolis. ISBN 0-880938-62-5.
3. BOWMAN, L., L., WAITE, M., Bradley, 2003. Volunteering in Research: Student Satisfaction and Educational Benefits. In: Teaching of Psychology. Roč. 30, č. 2, s. 102-106. ISSN 00986283.

4. BRAIME, J., RUOHONEN, M., 2011. Exploring Impacts of Volunteering on University Students in London [online]. Dostupné z: http://www.ncl.ac.uk/careers/assets/documents/student_volunteering_survey2011.pdf
5. BRANDES, K., RANDALL, K., 2011. Service Learning and Civic Responsibility. Assesing Aggregate and Individual Level Change. In: International Journal of Teaching and Learning in Higher Education. Roč. 23, č. 1, s. 20-29. ISSN 1812-9129.
6. BROZMANOVÁ GREGOROVÁ, A., 2014. Možnosti aplikácie koncepcie service learning v spoločných študijných programoch na Univerzite Mateja Bela v Banskej Bystrici. In: Sociálna ekonomika a vzdelávanie: zborník vedeckých štúdií. Banská Bystrica: Univerzita Mateja Bela, Ekonomická fakulta, ISBN 978-80-557-0623-7.
7. BROZMANOVÁ GREGOROVÁ, A. et al., 2012. Dobrovoľníctvo na Slovensku– výskumné reflexie. Bratislava: Iuventa. ISBN 978-80-8072-119-0.
8. CELIO, I., Ch. et al., 2011. A meta analysis of the Impact of Service-learning on Students. In: Journal of Experiential Education. Roč. 34, č. 2, s. 164-181. ISSN 10538259.
9. EDWARDS, B., MOONEY, L., HEALD, C., 2001. Who Is Being Served? The Impact of Student Volunteering on Local Community Organizations. In: Nonprofit and Voluntary Sector Quarterly. Roč. 30, č. 3, s. 444-461. ISSN 0899-7640.
10. EINFIELD, A., COLLINS, D., 2008. The relationship between service-learning and civic engagement. In: Journal of College Student Development. Roč. 49, č. 2, s. 95-109. ISSN 0897-5264.
11. EYLER, S., J. et al., 2001. The Effects of Service-Learning on College Students, Faculty, Institutions and Communities, 1993-2000 [online]. Dostupné z: https://www.mnsu.edu/cetl/academicservicelearning/Service-Learning.pdf
12. FISKE, B., E., 2002. Learning in Deed. The power of service-learning for American Schools [online]. Dostupné z: http://files.eric.ed.gov/fulltext/ED465829.pdf
13. Guide to service learning colleges and universities, 2009. Westmark: Kendall Hunt. ISBN 9-780980-013214.
14. GUNASEKARA, Ch. 2004. The third role of Australian universities in human capital formation. In: Journal of higher education policy nad management. Roč. 26, č. 3, s. 329-343. ISSN 1360-080X.
15. HADŽI MICEVA, K., 2008. Komparatívna analýza dobrovoľníctva v európskych právnych systémoch a prax. In: MARČEK, Eduard, 2008. Dobrovoľníctvo a právna úprava. Bratislava: Nadácia otvorenej spoločnosti–Open Society Foundation, s. 8–33. ISBN 978-80-969271-6-6.
16. HELLIWEL, J., LAYARD, R., SACHS, J., 2015. World happiness report 2015 [online]. Dostupné z: http://www.theglobeandmail.com/news/national/article24073928.ece/BINARY/World+Happiness+Report.pdf
17. HOLDSWORTH, C., QUINN, J., 2010. Student volunteering in English higher education. In: Studies in Higher Education. Roč. 35, č. 1, s. 113-127. ISSN 0307-5079.
18. HUSTINX, L., LEVENTHAL HASKI, D., HANDY, F. 2008. One of a kind? Comparing episodic and regular volunteers at the Philadelphia Ronald McDonald House. In: International Journal of Volunteer Administration. Roč. 15, č. 3, s. 50-66. ISSN 1942-728X.
19. JONES, F., 2000. Youth volunteer on the rise [online]. Dostupné z: http://www.statcan.gc.ca/pub/75-001-x/2000001/4888-eng.pdf

20. JONES, M., 2004. Community service on transition/Shifts and continuties in participation from high school to college. In: Journal of Higher Education. Roč. 75, č. 3, s. 307-339. ISSN 0018-1560.
21. KAYE BERGER, C., 2010. The complete guide for service learning. Minneapolis: Free Spirit. ISBN 978-1-57542-345-6.
22. KOLIBA J., Ch., CAMPBELL, K., E., SHAPIRO, C., 2006. The Practice of Service Learning in Local School-Community Context. In: Educational Policy. Roč. 20, č. 6, s. 685-686. ISSN 0895-9048.
23. MALMERSJO, G., PAINE ELLIS, A., 2006. Active Learning: Understanding Volunteering Among Open University Students [online]. Dostupné z: http://www.ivr.org.uk/images/stories/Institute-of-Volunteering-Research/Migrated-Resources/Documents/A/OU-student-vol--FINAL-REPORT---Active-Learning.pdf
24. MATULAYOVÁ, T., 2012. Dobrovoľníctvo cez prizmu sociálnej práce ako vedy. In: MATULAYOVÁ, Tatiana (ed.). Dobrovoľníctvo ako výskumná téma sociálnej práce a sociológie Zborník z vedeckej konferencie v Liberci. Liberec: Technická univerzita v Liberci, s. 5-10. ISBN 978-80-7372-856-4.
25. MATULAYOVÁ, T., MUSIL, L. et al., 2014. Postmoderní institucionalizace sociální práce ve Visegrádskem regionu. Liberec: Univerzita v Liberci. ISBN 978-80-7494-032-3.
26. MYDLÍKOVÁ, E. et al., 2002. Dobrovoľníctvo na Slovensku alebo „Čo si počať s dobrovoľníkom“. Bratislava: ASSP. ISBN 80-968713-0-7.
27. McCABE, M., WHITE, K., OBST, P., 2007. The importance of volunteer functions to university students. In: Australian Journal on Volunteering. Roč. 2, č. 12, s. 50-58. ISSN 1325-8362.
28. MEIER, S., STUTZER, A., 2008. Is Volunteering Rewarding in Itself? In: Economica. Roč. 75, č. 297, s. 35-59. ISSN 1468-0335.
29. MEYERS, S., 2009. Service learning as an opportunity for personal and social trasformation. In: International Journal of Teaching and Learning in Higher Education. Roč. 21, č. 3, s. 373-381. ISSN 1812-9129.
30. MUSICK, A. M., WILSON, J., 2007. Volunteers: A social profile. Indiana: Indiana University Press. ISBN 978-0-253-34929-3.
31. SLAVKIN, M., 2010. Academic service-learning (A theorethical framework for Education, Schools and Civil Society). Westmark: Kendall Hunt. ISBN 978-0-7575-8021-5.
32. SPERA, Ch., 2013. Volunteering as a Pathway to Employment: Does Volunteering Increase Odds of Finding a Job for the Out of Work? [online]. Dostupné z: http://www.nationalservice.gov/sites/default/files/upload/employment_research_report.pdf
33. STEWART, C., 2012. Volunteering and Lifelong Learning in Universities in Europe. [online]. Dostupné z: http://www.observatoritercersector.org/pdf/recerques/2012-03%20Projecte%20Value_Final%20projecte.pdf
34. SMITH, K., M., 2010. John Dewey on education, experience and community, the encyclopedia of informal education [online]. Dostupné z: http://infed.org/mobi/john-dewey-on-education-experience-and-community/
35. University Volunteer Service Policy of Nova Southeastern University, 2015 [online]. Dostupné z: http://www.nova.edu/hr/volunteer-service/university-volunteer-service-policy.html
36. Volunteering 'boots community happiness', 2004 [online]. Dostupné z: http://www.theguardian.com/society/2004/sep/20/research.highereducation

37. WU, Huinting, 2011. Social Impact of Volunteerism [online]. Dostupné z: http://www.pointsoflight.org/sites/default/files/site-content/files/social_impact_of_volunteerism_pdf.pdf

Kontaktné údaje
Mgr. Lucia Gregová, PhD.
Prešovská univerzita v Prešove, Filozofická fakulta
Inštitút edukológie a sociálnej práce
Ul. 17. novembra
080 78 Prešov
Slovensko
email: lucigregi@gmail.com

ARCHETYP UČITELE MĚŠŤANSKÉ ŠKOLY BAŤOVSKÉHO ZLÍNA

THE ARCHETYPE OF THE CITIZENS' SCHOOL TEACHER IN THE BAŤA'S ZLÍN

Tereza Slobodníková

Abstrakt

Příspěvek se zabývá postavením učitele v podmínkách měšťanské školy Baťovského Zlína, kdy je věnována pozornost zejména otázce jeho role a vztahu k žákům a rodičům. Jako příklady učitelů měšťanské školy jsou zmíněni Stanislav Vrána, Nora Hradilová, Antonín Grác a Ladislav Vlček.

Klíčová slova: *Baťa, Zlín, měšťanská škola, učitel*

Abstract

The article deals with a matter of a teacher in contemporary citizens' school in Baťa's Zlín. I mainly paid attention on the issue of the role of the teacher and his relationship with children and their parents. Then, some teachers of the citizens' school (Stanislav Vrána, Nora Hradilová, Antonín Grác and Ladislav Vlček) are mentioned.

Key words: *Baťa, Zlín, Citizens' School, Teacher*

ÚVOD

Příspěvek se zabývá učiteli v Baťovském Zlíně, díky nimž se stalo zlínské školství v období 20. až 40. let minulého století pokrokovým a představovalo místo, kam proudily řady odborníků nejen z celého Československa, ale i z Evropy.

Koncern Baťa od okamžiku, kdy se jeho šéf Tomáš Baťa stal v roce 1923 starostou města, aktivně participoval také na utváření podoby zlínského školství. Cílem příspěvku, při jehož psaní byla použita metoda analytická, deskriptivní a teleologická, je přiblížit soudobé náhledy na osobu učitele, přičemž v závěrečné partii příspěvku se věnuji také několika tehdejším učitelům, které je možné vnímat jako hlavní nositele praporu baťovského školství. Podpora školství byla zřejmá také z realizace školských budov, přičemž celá čtvrť měla vzniknout na základě projektu F. L. Gahury z roku 1927, z něhož byla realizována v roce 1928 pouze budova tzv. Masarykových škol. V roce 1930 přibyla budova živnostenské školy od M. Lorence[1] a nakonec byla v letech 1932 až 1935 skutečně realizována v centru Zlína celá školní čtvrť.[2] K tomu pak náležely také školní budovy na Letné, Zálešné, Dílech, v Otrokovicích, na Zlínských Pasekách či v Loukách. Je možné tedy zkonstatovat, že hlavní rozvoj zlínské školství zaznamenalo za doby J. A. Bati, jenž po tragické smrti svého bratra v létě 1932 převzal za zajímavých okolností vedení celého koncernu.[3]

[1] *Miroslav Lorenc, Jaromír Krejcar: zlínská moderní architektura a pražská avantgarda: = moderne Architektur in Zlín und die Prager Avantgarde: [katalog výstavy, Zlín] 14. prosince 1995 - 2. února 1996.* Zlín: Státní galerie, 1995, s. 12.
[2] NOVÁK, Pavel. *Zlínská architektura 1900-1950*. Zlín: POZIMOS, 2008, s. 85-93.
[3] Srov. KOLUMBER, David. *Spory o Baťův odkaz.* Ostrava: Key Publishing, 2016, s. 82-86.

1 OSOBNOST A VZDĚLÁNÍ UČITELE

Již sám šéf koncernu J. A. Baťa byl přesvědčen, že úspěch vyučování závisí především na učiteli, na jeho vzdělání i osobnosti. Podle něj Zlínské školství potřebovalo pedagogy, kteří disponují jazykovými znalostmi, světovým rozhledem a životními zkušenostmi. Učitel musel mít dobrou a pevnou vůli, pochopení pro dětský svět, samozřejmostí byla láska k dětem, a i kladný vztah ke zlínské práci.[4]

Velký důraz byl kladen na mravní charakter učitele, to znamená, že učitel musel působit na žáky jako pozitivní, nikoliv negativní příklad. Učitel měl mít výchovné ideály, vést žáky k výchovnému cíli, k čemuž měl zajistit klidné a vyrovnané prostředí bez stresu. Výchovným cílem Baťovské měšťanské školy bylo vychovat lidi praktické.[5]

Dobrý učitel měl vždy nachystaný plán práce, věděl dokonce několik let dopředu, co se bude v jakém ročníku probírat, což znamená, že musel výborně ovládat osnovy. Probíranou látku musel dávat do souvislostí se skutečným životem, takže vyučoval vždy tak, aby vyučovací látka navazovala na skutečný život a přinesla žákům nejen teoretické, ale i praktické poznatky.[6]

Učitel si musel zapisovat své zkušenosti a neustále se ve své práci vzdělávat, k čemuž sloužilo studium odborné literatury, kterou si mohl najít v pedagogické knihovně v budově *První pokusné školy měšťanské.* Dokonce byla zřízena i stálá výstava školská, v níž se nacházely práce z různých oborů.[7]

Každý učitel, který se chtěl neustále vzdělávat, měl možnost navštěvovat kurzy a semináře pořádané *Okresní školskou reformní komisí ve Zlíně*, dále pak zde byla možnost hospitace (i hromadná) u jiných kolegů učitelů, což sloužilo k analýze vyučovacího postupu a techniky.[8]

Všem učitelům byla doporučována znalost minimálně dvou cizích jazyků, která byla nezbytná jak ke studiu cizojazyčné odborné literatury, tak i k cestě do ciziny. Bylo plánováno, že každý rok budou učitelé vysíláni na studijní cestu do pokročilých států Evropy, kde se nejen zdokonalí v jazyce, ale i získají nezbytné znalosti o tamějším školství, a tak budou schopni po návratu obohatit zlínské školství o nové poznatky.[9]

2 UČITEL-ŽÁK-RODIČ

Důležitou roli v životě žáků hrál jejich třídní učitel, který by měl své žáky dobře znát, zjistit jejich zájmy, vlastnosti, nemoci (př. krátkozrakost). Učitel si měl všímat výstředních dětí, anebo dětí, u kterých se domníval, že mají nějaký problém, a zjistit příčiny jejich závady rozhovorem po vyučování. Ve škole se je učitel snažil zařadit do skupiny spolužáků, případně je spřátelit s jedním spolužákem. Poznatky o každém žákovi byly uchovávány v jeho osobním archu, který vznikl při nástupu žáka do školy a každý školní rok byl doplňován a aktualizován.[10]

[4] Moravský zemský archiv – Státní okresní archiv ve Zlíně (dále jen „MZA, SOkA“), Fond Baťa, II/5, karton 1188, i. č. 13.
[5] MZA, SOkA, Fond Baťa, II/6, karton 1296, i. č. 346.
[6] MZA, SOkA, Fond Baťa, II/5, karton 1188, i. č. 13.
[7] MZA, SOkA, Fond Baťa, II/5, karton 1188, i. č. 13.
[8] MZA, SOkA, Fond Baťa, II/6, karton 1296, i. č. 346.
[9] MZA, SOkA, Fond Baťa, II/6, karton 1296, i. č. 346.
[10] MZA, SOkA, Fond Baťa, II/6, karton 1296, i. č. 346.

Třídní učitel musel být informován o sociálních poměrech rodin svých žáků, každý začátek školního roku vyplňovala rodina dotazník, a pokud třídní učitel uznal za vhodné, navštěvoval žáky ze špatných sociálních poměrů mimo vyučování přímo v jejich bydlišti.[11]

Úkolem třídního učitele byla péče nejen o třídu jako celek, ale také o každého žáka samostatně. Učitelé na zlínských školách měli v žácích vzbudit zvědavost a zájem pomocí pochvaly a povzbuzení, nikoliv pomocí trestů.[12]

Mezi další úkoly učitele patřily schůzky s rodiči svých žáků, byla zde také možnost pro rodiče vidět své žáky přímo ve vyučování. Tato možnost se v průběhu let velice osvědčila, neboť se dříve stávalo, že rodiče chodili za učiteli s různými výčitkami, protože své děti sami neviděli přímo při výuce.[13]

3 BAŤOVŠTÍ UČITELÉ

V roce 1933 vydalo ministerstvo školství a národní osvěty (MŠANO) soupis všech škol a učitelstva patřících do okruhu národního školství. V kontextu Zlína je zmíněno přibližně šedesát učitelů,[14] z nichž bych zmínila především Stanislav Vránu, Eleonoru Hradilovu, Antonína Gráce a Ladislava Vlčka.

Stanislav Vrána byl ředitelem Pokusné diferencované měšťanské školy a hlavním představitelem zlínsko-baťovského školství. Narodil se v roce 1888, maturoval v roce 1908. Již kolem roku 1924 jednal s Tomášem Baťou o reformě školství, nicméně působit ve Zlíně začal až po studiu na *Teachers College Columbia University* od roku 1929 jako ředitel měšťanské školy.[15] V pozdějším období participoval mj. také na vzniku jinojazyčné měšťanské školy.[16] Měl způsobilost k výuce německého jazyka na měšťanských školách a výuce na pomocných školách.[17] Po válce se Vrána stal ředitelem brněnské expozitury Výzkumného ústavu pedagogického, do důchodu odešel v roce 1948, zemřel v lednu 1966.[18] Je autorem či spoluautorem přes sta publikací.

Eleonora (Nora) Hradilová se narodila v roce 1887, maturovala v roce 1908.[19] Působila nejprve na Masarykově pokusné škole, poté na Komenského pokusné škole, kde byla ředitelkou do nuceného odchodu v roce 1941, po válce jí byl umožněn návrat. Nora Hradilová byla sestrou ředitele Baťovy školy práce Jaromíra Hradila (1882-1968). E. Hradilová byla autorkou učebnic zeměpisu, v letech 1934 až 1940 to bylo jedenáct publikací.

Antonín Grác se narodil v roce 1894, maturoval v roce 1913, způsobilost měl k výuce německého jazyka na obecné škole.[20] Grác se později stal prvním ředitelem Studijního ústavu, zemřel v roce 1969.[21] Publikoval na téma biologie, je autorem přibližně padesáti publikací.

---

[11] MZA, SOkA, Fond Baťa, II/5, karton 1188, i. č. 13.
[12] MZA, SOkA, Fond Baťa, II/5, karton 1188, i. č. 13.
[13] MZA, SOkA, Fond Baťa, II/5, karton 1188, i. č. 13.
[14] *Seznam národních škol a jejich učitelstva v Československé republice podle stavu ze dne 31. října 1933*. Praha: St. nakl., 1934, s. 330-331.
[15] POKLUDA, Zdeněk. *Baťovi muži*. Zlín: Kovárna VIVA, 2012, s. 116-117.
[16] MZA, SOkA, Fond Nšk Masarykova Gottwaldov, i. č. 255.
[17] *Seznam národních škol a jejich učitelstva v Československé republice podle stavu ze dne 31. října 1933*. Praha: St. nakl., 1934, s. 330.
[18] POKLUDA, Zdeněk. *Baťovi muži*. Zlín: Kovárna VIVA, 2012, s. 117.
[19] *Seznam národních škol a jejich učitelstva v Československé republice podle stavu ze dne 31. října 1933*. Praha: St. nakl., 1934, s. 330.
[20] Tamtéž.

Ladislav Vlček se narodil v roce 1901, maturoval v roce 1920.[22] V pozdějším období se stal ředitelem Soukromé jinojazyčné měšťanské školy ve Zlíně,[23] v září 1941 byl ustanoven odborným učitelem na hlavní škole ve Starém Městě.[24]

Je tedy zajímavé sledovat, že mnozí z řad učitelů působících na baťovské pokusné měšťanské škole poté působilo ve vedoucích funkcích v dalších vzdělávacích institucích.

ZÁVĚR

Předložený příspěvek se věnuje pojetí učitele v podmínkách měšťanské školy Baťova Zlína, kdy hlavním zdrojem poznání jsou archivní materiály. Ve stručnosti se poté věnuji také několika učitelům měšťanské školy, které považuji určitým způsobem za zajímavé a významné. Není možné si pak nevšimnout, že přístup k osobě pedagoga a akcentace určitých témat je podnětná i pro současnost, kdy se soudobé pedagogické trendy fakticky vrací k meziválečnému období.

Použitá literatura

1. KOLUMBER, David. *Spory o Baťův odkaz.* Ostrava: Key Publishing, 2016. 170 s. ISBN 978-80-7418-252-5.
2. *Miroslav Lorenc, Jaromír Krejcar: zlínská moderní architektura a pražská avantgarda: = moderne Architektur in Zlín und die Prager Avantgarde: [katalog výstavy, Zlín] 14. prosince 1995 - 2. února 1996*. Zlín: Státní galerie, 1995. 79 s. ISBN 80-85052-22-9.
3. NOVÁK, Pavel. *Zlínská architektura 1900-1950*. Zlín: POZIMOS, 2008. 319 s. ISBN 978-80-254-3215-0.
4. POKLUDA, Zdeněk. *Baťovi muži*. Zlín: Kovárna VIVA, 2012. 167 s. ISBN 978-80-260-3389-9.
5. *Seznam národních škol a jejich učitelstva v Československé republice podle stavu ze dne 31. října 1933*. Praha: St. nakl., 1934. 810 s.

Kontaktní údaje

Tereza Slobodníková
Masarykova univerzita, Pedagogická fakulta
Poříčí 7/9, 639 00 Brno-střed
Tel: 549 491 111
email: 447661@mail.muni.cz

[21] KOLUMBER, David. Studijní ústav ve Zlíně. In: *Sborník konference: Recenzovaný sborník příspěvků vědecké konference s mezinárodní účastí Sapere Aude 2014*. Hradec Králové: MAGNANIMITAS, 2014. s. 306.
[22] *Seznam národních škol a jejich učitelstva v Československé republice podle stavu ze dne 31. října 1933*. Praha: St. nakl., 1934, s. 330.
[23] *Mladý Zlín*. Roč. 4, 1934-09-01, č. 1, s. 9.
[24] MZA, SOkA, Fond Soukromá měšťanská škola (s právem veřejnosti) Zlín, e. č. 99, i. č. 99.

SKUTECZNOŚĆ NEUROGRY JAKO METODY USPRAWNIANIA PROCESÓW POZNAWCZYCH: WPŁYW NA CODZIENNE FUNKCJONOWANIE

NEUROGRA'S EFFECTIVENESS AS A METHOD OF IMPROVING COGNITIVE PROCESSES: EFFECTS ON EVERYDAY FUNCTIONING

Agata Szekiełda

Streszczenie

Celem przeprowadzonych badań jakościowych było sprawdzenie, czy trening poznawczy w postaci gier na portalu Neurogra jest skuteczny w usprawnianiu funkcji poznawczych – zarówno obiektywnie (poprawa pamięci krótkotrwałej), jak i subiektywnie (subiektywna zmiana w codziennym życiu). W badaniach wzięło udział 20 osób – 13 kobiet i 7 mężczyzn w wieku 44-80 lat, nie wykazujący widocznych zaburzeń poznawczych. Poddani byli zaplanowanym pre- i post-testom, pomiędzy którymi miał miejsce 60-dniowy trening na portalu Neurogra. Rezultatem treningu była istotna obiektywna poprawa pamięci u przynajmniej 6 z 20 badanych. Odnotowano liczne subiektywne zmiany w codziennym funkcjonowaniu: poprawę pamięci, uwagi, koncentracji, logicznego myślenia. Zgłaszano poczucie świeżości umysłu, wzrost poczucia kompetencji, satysfakcję i radość z gier.

Słowa kluczowe: *trening poznawczy, gry komputerowe, poprawa funkcji poznawczych, pamięć, zdrowe starzenie się, poczucie własnej skuteczności*

Abstract

The objective of conducted qualitative studies was to verify if cognitive training via Neurogra site shows positive results in improving cognitive functions: both objectively (improvement in short time memory) and subjectively (subjective change in everyday life). A total of 20 cognitively healthy people between 44 and 80 years old took part in the trial: 13 women and 7 men. They were examined by designed pre- and post-tests, between which they played cognitive games at Neurogra site for 60 days. As a result of training, at least 6 out of 20 people showed statistically important memory improvement. A lot of positive effects were declared: memory, attention, concentration, logical thinking improvement. Participants reported: a feeling of refreshed mind, increased sense of competence, satisfaction and joy of playing.

Keywords: *cognitive training, computer games, improving cognitive skills, memory, healthy aging, self-efficacy*

1. Wstęp

Współcześnie wiele miejsca poświęca się zarówno w mediach, jak i literaturze naukowej na dyskusje dotyczące stylu życia: odżywiania, aktywności fizycznej i psychicznej. Szukane są determinanty zachowania dobrej kondycji fizycznej i psychicznej przez jak najdłuższy czas. Poszukiwane są między innymi metody usprawniania funkcji poznawczych, takich jak pamięć, uwaga, koncentracja, logiczne myślenie. Dotyczy to ludzi w każdym wieku: dzieci, młodzieży, dorosłych i seniorów. Procesy poznawcze pełnią bowiem ważną rolę w edukacji, życiu zawodowym i osobistym. Tworzone są liczne kursy czy poradniki, książki z ćwiczeniami mającymi „poprawić inteligencję". Ponadto z uwagi na zmniejszający się przyrost naturalny i wzrastającą oczekiwaną długość życia, coraz większą część

społeczeństwa stanowią ludzie starzy. W Polsce ponad 20% ludności stanowią osoby po 60 roku życia, jak głoszą dane Głównego Urzędu Statystycznego z 2015 roku. Tym ważniejsze staje się zagadnienie utrzymania dobrej kondycji psychofizycznej – zarówno z punktu widzenia jednostek (godne, satysfakcjonujące życie), jak i państwa (względy ekonomiczne). Odpowiedzią na tę potrzebę są treningi poznawcze, w tym – kierowane specjalnie do osób w wieku senioralnym. Aktywność intelektualna podtrzymywana do późnego wieku jest bowiem czynnikiem spowalniającym pogarszanie się funkcjonowania poznawczego (Nęcka, 2003). Nawet krótki trening przyczynia się do podnoszenia wyników osiąganych w testach pamięci (Sternberg, 2001).
Powszechna dostępność komputerów i urządzeń mobilnych z dostępem do Internetu stwarza możliwość wykorzystania ich jako narzędzia usprawniania funkcji poznawczych. Od kilkunastu lat prowadzone są badania nad skutecznością treningów poznawczych wykorzystujących gry komputerowe i porównujące je z tradycyjnymi metodami. Większość analiz wskazuje na pozytywne zmiany zachodzące w mózgu pod wpływem treningu – zmienia się struktura i funkcje mózgu, poprawia się pamięć i uwaga (Powers i WSP., 2013). Podstawą tych zjawisk jest neuroplastyczność mózgu – zdolność neuronów do zmiany pełnionej funkcji i tworzenia nowych połączeń synaptycznych. Neuroplastyczność pozwala na uczenie się, poprawę zdolności pamięciowych, przystosowanie do otoczenia, a nawet odzyskanie utraconych funkcji (Kossut, 2014). Gry zdają się być skuteczniejszym narzędziem ćwiczeniowym niż tradycyjne metody (Kowalczyk, 2014). Platformy gier zaprojektowanych specjalnie w celu usprawnienia takich aspektów jak pamięć, koncentracja, szybkość reakcji czy logiczne myślenie zaczęły powstawać 10 lat temu (Lumosity), a na polskim rynku oferowane są dopiero od 4 lat (Neurogra). Potrzebne są zatem badania nad efektywnością takich ćwiczeń, trwałością uzyskanej poprawy oraz możliwościami transferu na obszary codziennego funkcjonowania. Istotne są też pytania o determinanty zmian. Analiza literatury wskazuje, że znaczący wpływ na szeroko pojęte zachowania zdrowotne jednostki – angażowanie się i utrzymywanie korzystnych dla zdrowia działań – ma poczucie własnej skuteczności (Juczyński, 2000). Poczucie własnej skuteczności i odczuwana efektywność treningu poznawczego mogą więc zwrotnie na siebie wpływać.

2. Cel

Celem badań było sprawdzenie czy trening w formie gier na portalu Neurogra jest skuteczną metodą usprawniania funkcji poznawczych. Sprawdzano obiektywną zmianę w testach pamięci krótkotrwałej oraz subiektywne poczucie poprawy w codziennym życiu, zgłaszane przez uczestników. Weryfikowano czy u źródeł subiektywnie odczuwanej poprawy w codziennym funkcjonowaniu leży poczucie własnej skuteczności, a także jakie inne czynniki mogą wpływać na transfer nabytych podczas treningu umiejętności na codzienne funkcjonowanie.

3. Materiał i metody

Przeprowadzone badania eksploracyjne miały charakter jakościowy, choć otrzymano również pewne wskaźniki ilościowe. Grupę badawczą stanowiło 20 osób pomiędzy 44 a 80 rokiem życia, w tym 13 kobiet i 7 mężczyzn. Wykształceniem wyższym legitymowało się 14 osób, pozostałe miały wykształcenie średnie, z czego jedna była w trakcie studiów. Pięcioro spośród badanych ukończyło więcej niż jeden kierunek studiów, wiele osób odbyło liczne kursy doszkalające. Połowa badanych była na emeryturze lub rencie, z czego 4 osoby pozostawały aktywne zawodowo w niewielkim wymiarze godzin. Jeden uczestnik wykonywał zawód fizyczny nie wymagający specjalnego przeszkolenia, trzy osoby wykonywały zawód mieszany, fizyczno-umysłowy (pielęgniarstwo, rehabilitacja), pozostałe pracowały umysłowo. Badani rekrutowani byli na dwa sposoby: poprzez własną sieć

kontaktów (osoby znajome, rodzina badacza) oraz poprzez ogłoszenie zamieszczone na stronie internetowej Centrum Inicjatyw Senioralnych w Poznaniu (CIS).
Badania przeprowadzono w 2016 i 2017 roku. Posłużono się czterema narzędziami badawczymi: Skalą Uogólnionej Własnej Skuteczności (GSES), testem Powtarzanie Cyfr, będącym częścią Skali Inteligencji Wechslera dla Dorosłych, kwestionariuszem MINIMENTAL – Krótką Skalą Oceny Stanu Umysłowego (MMSE) oraz wywiadem swobodnym. Wszystkie zostały wykonane na pierwszym z indywidualnych spotkań z osobami badanymi. Następnie miał miejsce trwający 60 dni okres treningowy za pośrednictwem serwisu Neurogra. Badani poproszeni zostali o, w miarę możliwości, codzienne granie w przynajmniej 5 losowo wybranych z katalogu gier ćwiczących pamięć, szybkość reakcji, koncentrację i logiczne rozumowanie. Zajmowało to około 30 minut. Po upływie dwóch miesięcy następowało drugie spotkanie z uczestnikami projektu, w trakcie którego odbywała się rozmowa podsumowująca doświadczenia związane z treningiem oraz ponownie przeprowadzano test Powtarzanie Cyfr.
Badani otrzymali nieodpłatny nieograniczony dostęp do gier w internetowym serwisie Neurogra na 3 miesiące. Neurogra oferuje odpłatny dostęp do 29 gier zaprojektowanych w celu poprawy pamięci, koncentracji, planowania i szybkości reakcji poprzez regularne ćwiczenia. Przegląd dostępnych gier wraz z trenowaną funkcją oraz krótkim opisem przedstawiono w Tabeli 1.

Tabela 1. Krótki opis gier z serwisu Neurogra

Nazwa gry	**Trenowana funkcja**	**Opis gry**
Do tablicy	logika	Należy zapamiętać przedstawione relacje pomiędzy literami, a później odpowiedzieć, czy wyświetlane twierdzenia są prawdziwe.
Eskadra	uwaga	Należy wskazać, w którą stronę skierowany jest środkowy samolot.
Kostka	pamięć	Należy zapamiętać kolejność podświetlanych pól i ją odtworzyć.
Migotka	uwaga	Należy wskazać, która z figur „mignęła" – lewa czy prawa.
Pogoń cyfr	pamięć podręczna	Należy sumować dwie cyfry i zapamiętywać drugą z nich, która będzie składnikiem kolejnej sumy.
Talia kart	szybkość	Należy odpowiadać, czy wyświetlona karta jest taka sama czy inna niż karta wyświetlona tuż przed nią.
Żółte karteczki	pamięć	Należy zapamiętać wyświetlane słowa, a następnie wybrać je spośród podanych we właściwej kolejności.
ABC	pamięć	Należy zapamiętać wyświetlane litery, a następnie wpisać je w puste pola.
Chmury	pamięć podręczna	Należy wykonywać działania matematyczne w chmurach.
Cyfry	uwaga	W zależności od koloru tabliczki, należy zaznaczać czy cyfra: jest / nie jest parzysta lub jest / nie jest duża.
Czerwony autobus	pamięć podręczna	Należy wciskać klawisz, gdy pasażer autobusu pojawi się na miejscu, na którym był 2-wstecz.
Figury w biegu	szybkość	Należy odpowiadać, czy wyświetlona figura ma ten sam czy inny kolor niż figura wyświetlona tuż przed nią.
Gwiazdy	pamięć podręczna	Należy zapamiętywać ilość gwiazd i układać z liter sensowne słowo, a następnie odtwarzać ilość gwiazd w

		poprzedzających seriach.
Kameleon	uwaga	Należy zaznaczać kolor czcionki, którą napisane jest słowo.
Kolorowe obrazy	uwaga	Należy odpowiadać, czy kolor tabliczki jest taki sam jak nazwa koloru na niej widniejąca.
Koniczyna	pamięć podręczna	Należy wciskać klawisz, gdy koniczyna pojawi się na miejscu, na którym była n-wstecz.
Koło do kwadratu	uwaga	W zależności od położenia figur (góra/dół) należy zliczać: ile było kół/kwadratów lub ile było figur zielonych/niebieskich.
Matrix	pamięć podręczna	Należy zapamiętywać podświetlane pola, a następnie zaznaczyć je we właściwej kolejności -- po obrocie planszy o 90 stopni.
Menzurki	logika	Należy odtworzyć układ klocków przedstawiony na rysunku.
Okno	uwaga	W zależności od położenia, należy odpowiadać czy wyświetlony symbol jest: liczbą parzystą, liczbą nieparzystą, samogłoską, spółgłoską.
Ostatnie słowo	pamięć podręczna	Należy przepisywać zdania i zapamiętywać ostatnie słowa, a następnie je odtwarzać.
Owoce	pamięć podręczna	Należy zaznaczać czy dany owoc pojawił się na planszy.
Przyjaciele	logika	Należy zapamiętać przedstawione relacje pomiędzy osobami, a później odpowiedzieć, czy wyświetlane twierdzenia są prawdziwe.
Ptaki	pamięć	Należy odpowiadać czy ptaki zmieniły swoje położenie.
Speed	szybkość	Należy odpowiadać, czy wyświetlona figura ma ten sam czy inny kształt niż figura wyświetlona tuż przed nią.
Sztaluga	pamięć podręczna	Należy zapamiętać ciąg cyfr i liter, a następnie wpisać n końcowych cyfr lub liter.
W pamięci	pamięć podręczna	Należy zapamiętywać litery i wykonywać działania matematyczne, a następnie zaznaczać na planszy litery w odpowiedniej kolejności.
Kalkulator	pamięć	Należy zapamiętać kolejność podświetlanych pól i ją odtworzyć.
Parking	pamięć	Należy zapamiętać położenie samochodów na parkingu i je odtworzyć.

Źródło: opracowanie własne

4. Wyniki

Przeprowadzone wywiady nakreśliły obraz grupy badanej jako osób wszechstronnie wykształconych, posiadających liczne, różnorodne zainteresowania. W wolnym czasie zdecydowana większość często oddaje się rozrywkom angażującym zarówno umysł, jak i ciało. Zwłaszcza starsi spośród badanych chętnie opowiadali o swoim życiu i pasjach. Emerytura lub ograniczenie aktywności zawodowej przekłada się na większą ilość czasu, który można poświęcić na rozwój zainteresowań. Jedna z badanych opisała swoją aktywność następująco: *Muszę pani powiedzieć, że zdarza się, że po prostu doba jest za krótka dla mnie, tak bym powiedziała.*

Motywacja do wzięcia udziału w badaniach była dwojaka. Ośmioro spośród badanych zgłosiło się do udziału w projekcie odpowiadając na ogłoszenie umieszczone na stronie

internetowej Centrum Inicjatyw Senioralnych (CIS). Były to osoby chętnie i często korzystające z dostępnych ofert spędzania czasu wolnego. Wiodącą deklarowaną motywacją była chęć spróbowania swoich sił w nowej, ciekawej aktywności, a także pragnienie rozwoju i poprawy pamięci. Pozostali badani, pozyskani poprzez grono znajomych autorki pracy, kierowali chęcią pomocy osobie badającej oraz poprawy pamięci i koncentracji.
Test MMSE zastosowano w celach przesiewowych, aby włączyć do badań jedynie osoby nie wykazujące zaburzeń poznawczych. Jeden badany, M70PL, uzyskał w tym teście wynik interpretowany jako niewielkie upośledzenie funkcji poznawczych. W kontakcie sprawiał wrażenie osoby funkcjonującej w normie poznawczej, zatem postanowiono włączyć go do projektu.

Tabela 2. Zestawienie najważniejszych wyników z badań

kod os.bad.	GSES	śr. ocena NG	zaangażowanie ocena 1-5	zaangażowanie % dni gier	Powt. Cyfr WP1	Powt. Cyfr WP2	Powt. Cyfr WP1-WP2	zmiana w codz. funkcjonowaniu
K44MB	wysokie	4,0	4	92%	11	17	6**	tak
K48SI	niskie	3,8	4	97%	12	13	1	nie
K50KK	przeciętne	4,2	4	97%	10	11	1	nie
K58SJ	wysokie	4,6	4	68%	11	11	0	nie
K59ZZ	wysokie	3,8	4	85%	17	19	2	nie
K60RH	przeciętne	4,2	5	73%	11	13	2	nie
K63CG	wysokie	4,8	5	77%	12	11	-1	tak
K67MW	wysokie	4,4	4	80%	10	9	-1	tak
K67PI	niskie	3,4	3	73%	15	15	0	nie
K68CD	wysokie	4,0	5	70%	10	13	3*	nie
K70HL	wysokie	4,4	5	72%	10	17	7**	nie
K70LI	wysokie	4,8	3	97%	14	12	-2	nie
K80KW	wysokie	4,2	4	97%	11	16	5**	nie
M44PR	przeciętne	3,8	3	35%	15	19	4**	nie
M49PM	wysokie	4,2	3	92%	13	8	-5**	tak
M50MA	wysokie	3,6	3	97%	15	18	3	nie
M57SP	wysokie	3,8	4	92%	14	13	-1	nie
M70PL	wysokie	3,4	3	60%	15	14	-1	nie
M70PR	przeciętne	4,4	5	100%	13	17	4*	tak
M77RZ	wysokie	4,4	5	98%	12	13	1	tak

Źródło: opracowanie własne

Zdecydowana większość badanych miała wysokie poczucie własnej skuteczności (14 z 20 osób). Niskie lub przeciętne poczucie własnej skuteczności charakteryzowało kolejno dwie i cztery osoby. Dominujące wśród badanych wysokie wyniki na skali GSES nie zaskakują. Podjęcie się udziału w trwającym 60 dni treningu i utrzymanie się w nim wymagało przekonania, że jest się w stanie sprostać proponowanym grom poznawczym.
Testu Powtarzanie Cyfr użyto jako miary obiektywnej poprawy pamięci na skutek treningu poznawczego. Sprawdzano istotność różnicy pomiędzy wynikami przeliczonymi osiągniętymi w teście przeprowadzonym przed i po 60-dniowym okresie treningowym. Przyjmując $\alpha = 0{,}05$, istotną poprawę pamięci krótkotrwałej odnotowano u czworga badanych (20%). Biorąc $\alpha = 0{,}1$, poprawa nastąpiła u sześciu badanych (30%). Poprawa wystąpiła wśród najmłodszych i najstarszych uczestników badań – u jednej kobiety i jednego mężczyzny w wieku 44 lat oraz u trzech pań w wieku 68, 70 i 80 lat i 70-letniego pana. Należy zwrócić uwagę na to, że uczestnicy projektu wejściowo uzyskali w Powtarzaniu Cyfr wyniki przeciętne (steny 8-12 – 11 osób) oraz ponadprzeciętne i wysokie (steny 13-19 – 9 osób). Kończąc program treningowy, 6 osób uzyskało wyniki mieszczące się w zakresie wyników przeciętnych, a 14 – ponadprzeciętnych oraz wysokich. Wielu spośród osób badanych miało wyższe wykształcenie oraz regularnie zażywało aktywności umysłowej, co pomaga w

utrzymaniu dobrego funkcjonowania poznawczego. Trudniej o znaczącą poprawę pamięci wśród takich osób. W przypadku K59ZZ uzyskanie istotnej statystycznie poprawy było wręcz niemożliwe, gdyż zaczynała ona program z wynikiem przeliczonym na poziomie 17 stena, a kończyła z wynikiem 19 stenów, a zatem – maksymalnym. Wadą testu Powtarzanie Cyfr jest słabe różnicowanie w obszarze średnich i wysokich zdolności, pojemności pamięci bezpośredniej (Brzeziński i Hornowska, 1993). Test ten jest także wrażliwy na lęk przed oceną, hałas, zmęczenie osoby badanej, co należy wziąć pod uwagę przy analizowaniu wyników. Dwie badane (K63CG i K70LI) wykazywały wysoki poziom stresu przy post-teście. Deklarowały chęć osiągnięcia wyższego wyniku niż w pre-teście, aby autorka badań uzyskała lepsze wyniki. U jednego badanego (M49PM) miało miejsce istotne statystycznie obniżenie zdolności pamięciowych. Był to jedyny uczestnik projektu przebadany nie osobiście przez autorkę pracy, lecz przeszkoloną studentkę czwartego roku psychologii. Zapytana o okoliczności studentka powiedziała, że post-test Powtarzanie Cyfr przeprowadzony był późnym wieczorem, a M49PM był bardzo zmęczony. Mogło się to przyczynić do pogorszenia wyniku.

W trakcie spotkania podsumowującego udział w 60-dniowym treningu pamięci badanych zapytano czy zauważyli zmianę w codziennym funkcjonowaniu w następujących obszarach: pamięć, koncentracja, planowanie oraz szybkość reakcji. Wyodrębnione kategorie odpowiadają założonym przez twórców Neurogry trenowanym funkcjom. Dziewięcioro badanych deklarowało poprawę w przynajmniej jednym obszarze. Zgłaszali poprawę w zakresie planowania i dyscypliny, dłuższego utrzymywania uwagi. Łatwiej było im się skoncentrować na wykonywanych czynnościach, ignorując przy tym przeszkadzające bodźce. Pamięć, w ich odbiorze, funkcjonowała sprawniej. Opisując odczuwane efekty treningu, zajmujący się geodezją M50MA wspominał, że miał wrażenie nieświadomego uaktywnienia zasobów pamięci – w pracy przypominał sobie szczegółowe dane liczbowe dotyczące drzew. Z kolei K44MB grając na portalu Neurogra wypracowała różne strategie pamięciowe, które następnie wykorzystała w pracy zawodowej. M77RZ opowiadał, że na skutek treningu po raz pierwszy od wielu lat nie potrzebował spisywać listy zakupów, bo idąc do sklepu – pamiętał, co miał kupić. Rozmowy z uczestnikami projektu przyniosły ponadto informacje o zmianach wykraczających poza wyodrębnione obszary. Badani zgłaszali poprawę samopoczucia, znaczną satysfakcję spowodowaną polepszaniem wyników w grach. Mówili o *wrażeniu odświeżenia pamięci*, *odczuwaniu pobudzenia poznawczego* i *„efekcie nakręcenia", lepszym, szybszym działaniu mózgu*. Kilka osób z radością wyczekiwało na codzienny trening. Starsi uczestnicy wspominali ponadto, że nie oczekiwali znaczącej zmiany, ponieważ na co dzień intensywnie ćwiczą pamięć. Trening traktowali raczej jako formę utrzymania funkcjonowania poznawczego na stałym, dobrym poziomie. Przykładowo, K80KW wypowiedziała się następująco: *Podsumowując: stwierdzam, że jestem zadowolona z udziału w Neurogrze, lecz nie widzę aż tak wielkich postępów, ponieważ już poprzednio ćwiczyłam umysł poprzez szybkie wymienianie alfabetu od tyłu czy szybkie odejmowanie od 100 cyfry 7, 6, 4, 3 itp.*

Otrzymano dwie miary zaangażowania w trening. Uczestnicy poproszeni zostali o ocenę swojego zaangażowania w skali 1-5 – średnią oceną było 4,0. Obliczono ponadto odsetek dni, podczas których badani przystąpili do ćwiczeń – średnio wyniósł on 82,6%. Pomimo precyzyjnie określonego znaczenia każdej możliwej do wystawienia oceny subiektywnego zaangażowania, badani przypisywali poszczególnym ocenom zupełnie inne znaczenie. Przykładowo – K67PI oraz K70LI oceniły swoje zaangażowanie na 3; wywiad pokazał różnice w nadawanym tej ocenie znaczeniu. K70LI była jedną z osób, które odbyły najwięcej treningów (97%). Opowiadała, że wstawała z myślą, że dzień rozpocznie od gier, co było dla niej źródłem radości. Odczuwała wiele satysfakcji z poprawy wyników. Swoje zaangażowanie oceniła na 3, ponieważ *grała tylko jeden raz dziennie z uwagi na brak większej ilości czasu*. Natomiast zaangażowanie K67PI zmieniało się w trakcie 60-dniowego

okresu badawczego. Początkowo była zaciekawiona, *chciała się pobawić; niepokoiła się o wynik*; *wciągnęła się, ale nie chciała się uzależnić*. Po upływie 10 dni gry zaczęły ją nużyć. W Dzienniczku Codziennej Aktywności odnotowała: *Znudziła mnie powtarzalność gier, ich powierzchowność oraz sprzeczność wymagań i oceny wyników, np. promowanie za bezmyślną szybkość, a nie ilość poprawnych odpowiedzi.* Badana skomentowała także, że gry na szybkość sprawiały, że *czuła się jak kierowca na teście, uwłaczały jej inteligencji*. Pod koniec okresu treningowego grała wyłącznie z uwagi na podjęte zobowiązanie.
Uczestników poproszono również o ocenę (w skali od 1 do 5) różnych aspektów Neurogry: atrakcyjności graficznej, klarowności instrukcji do gier, atrakcyjności gier i ich różnorodności, a także o ogólną ocenę. Badani wysoko oceniali Neurogrę – średnia wyniosła 4,11. Około połowy z nich deklarowało chęć wykupienia abonamentu na dalsze miesiące. Wspominali o zachęceniu do trenowania przyjaciół i bliskich. Jak wspomniano wyżej, gry przynosiły uczestnikom wiele radości i pożytku. Ocena portalu była okazją do podzielenia się przemyśleniami dotyczącymi mankamentów Neurogry. Badani mówili o różnych niedogodnościach technicznych, które im przeszkadzały. Najczęściej wymienianym problemem były błędy ortograficzne lub literówki w zdaniach, które należało przepisać w grze Ostatnie słowo. Ponadto gry czasem się zawieszały, co przyczyniało się do pogorszenia wyników. Grafika według niektórych osób była nadmiernie uproszczona. Jedna z badanych zgłosiła nazbyt duże podobieństwo graficznie jabłka i pomarańczy w grze Owoce, co przy słabym wzroku i krótkim czasie ekspozycji uniemożliwia ich odróżnienie. Część gier miała niezrozumiałą instrukcję, niejednokrotnie badani zgłaszali, że uczyli się grać *metodą prób i błędów* lub prosząc o wyjaśnienie osobę bliską. Atrakcyjność gier obniżały następujące aspekty: zbyt krótki czas ekspozycji (przede wszystkim dla starszych graczy), nadmierna powtarzalność haseł w grach, słownictwo rzadko używane w potocznej mowie. Niektóre gry trwały zbyt długo i oceniane były jako męczące; badani po pewnym czasie opuszczali te gry, gdy zostały wylosowane w programie dziennego treningu. Dotyczyło to zwłaszcza gry Ostatnie słowo. Za nieatrakcyjne uznawano też gry, w których niemożliwe było poprawienie wyniku na pewnym poziomie. Powtarzalność gier w obrębie wybranego programu treningowego jest duża – pomimo, że w katalogu oferowanych jest 29 gier, to losowanie odbywa się z mniejszej puli. Dla części badanych było to zaletą – powtarzalność pozwalała na szlifowanie swoich umiejętności w danej grze. Inni, aby zaradzić znudzeniu, często zmieniali program treningowy (co 7-10 dni). Badani zauważali ponadto, że różnorodność gier jest w znacznej mierze pozorna; wiele gier opiera się na identycznym schemacie. Brakuje gier pozwalających rozwijać logiczne myślenie; w katalogu dostępne są tylko trzy tego typu gry. Liczne niedoskonałości opisywane były przez badanych raczej w celu ulepszenia istniejących gier niż jako wyraz niezadowolenia.
Badania nie wykazały żadnej istotnej zależności pomiędzy: oceną Neurogry a subiektywnym poczuciem zmiany, poczuciem własnej skuteczności a subiektywnym poczuciem zmiany, poczuciem własnej skuteczności a zaangażowaniem, czy wreszcie obiektywną zmianą mierzoną za pomocą testu Powtarzanie Cyfr a subiektywnym poczuciem zmiany.

5. Wnioski

Treningi w postaci gier komputerowych mają duży potencjał jako narzędzie usprawniania funkcjonowania poznawczego osób w każdym wieku, choć ciągle potrzebne są badania nad ich skutecznością, a zwłaszcza nad transferem nabytych umiejętności na codzienne życie. Przeprowadzone badania przyniosły istotną poprawę w teście pamięci krótkotrwałej u przynajmniej 6 z 20 badanych. Przynajmniej – ponieważ wybrany test nie różnicował dobrze wyników średnich i wysokich, a takie właśnie osiągali uczestnicy programu. Przeprowadzając podobne badania należałoby przemyśleć dobór testów mierzących obiektywną zmianę – nie tylko pamięci, ale także czasu reakcji, uwagi czy krytycznego myślenia.

Z punktu widzenia niniejszej pracy, najważniejsze były subiektywnie odczuwane zmiany w codziennym funkcjonowaniu osób badanych. Zarówno młodsi, jak i starsi uczestnicy odnotowali wiele pozytywnych efektów treningu, wykraczających poza cztery sprawdzane obszary (pamięć, koncentracja, planowanie oraz szybkość reakcji). Mówiąc o skuteczności treningu poznawczego, warto jest wziąć pod uwagę trudne do zmierzenia aspekty, jak na przykład poczucie świeżego, wyostrzonego umysłu. Do korzyści płynących z treningu należy też zaliczyć lepsze samopoczucie, wzrost poczucia kompetencji i satysfakcji. Zwłaszcza w odniesieniu do seniorów, jako efektywne uznać można ćwiczenia pozwalające na opóźnienie naturalnej deterioracji procesów poznawczych – co jednak należałoby badać w znacznie dłuższym niż 60 dni okresie czasu.

Przedmiotem dociekań badawczych w zakresie skuteczności treningu poznawczego w postaci gier warto uczynić motywację – zarówno do podjęcia się ćwiczeń, jak i do regularnego ich wykonywania. Rozmowy z uczestnikami badań sugerowały, że możliwy jest podział graczy na dwie grupy. Jedna zdawała się być motywowana premiami za samo przystąpienie do treningu; za mobilizujące uznawała hasła wyświetlane po każdej grze, takie jak np. *Brawo! Zwiększyłeś poprawność odpowiedzi!*. Druga grupa deklarowała, że wolałaby być nagradzana nie za regularność treningów, lecz wyłącznie za faktycznie osiągane postępy. Pożądane przez nich byłyby wskazówki umożliwiające szlifowanie umiejętności. Warto zatem pomyśleć o wzbogaceniu gier o programy uczące strategii, aby pomóc w poprawianiu wyników, aby gry były dłużej wyzwaniem oraz – by umożliwić wykorzystanie nabytych umiejętności w codziennym życiu.

Bibliografia

1. BRZEZIŃSKI, J., HORNOWSKA, E. (red.). *Skala inteligencji Wechslera WAIS-R*. Warszawa: Wydawnictwo Naukowe PWN, 1993. ISBN 83-01110-99-6.
2. JUCZYŃSKI, Z. Poczucie własnej skuteczności – teoria i pomiar. *Folia psychologica, 4*, 2000. 11-24 s.
3. KOSSUT, M. Plastyczność mózgu. *Neuropedia – Encyklopedia Neuronauki 1*(1):2; wersja 1, 2014. Pozyskano z: http://neuropedia.org.pl/plastycznosc-mozgu/ [Dostęp: 1.12.2017]
4. KOWALCZYK, N., BRZEZICKA, A., KOSSUT, M. Zmiany neuroplastyczne w wyniku intensywnych treningów poznawczych: porównanie tradycyjnego podejścia i metod wykorzystujących gry komputerowe. *Neuropsychiatria i Neuropsychologia, 9*(3-4), 2014. 104-111 s.
5. NĘCKA, E. *Inteligencja. Geneza, struktura, funkcje*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne, 2003. ISBN 83-89120-08-9.
6. POWERS, K., L., BROOKS, P. J., ALDRICH, N., J., PALLADINO, M. A., ALIFIERI, L. *Psychonomic Bulletin \& Review, 20*(6), 2013. 1055-1079 s.
7. STERNBERG, R. J. *Psychologia poznawcza*. Warszawa: Wydawnictwo Szkolne i Pedagogiczne Spółka Akcyjna, 2001. ISBN 83-02080-93-4.

Kontakt

Mgr Agata Szekiełda
Absolwentka Uniwersytetu im. Adama Mickiewicza w Poznaniu – Wydział Nauk Społecznych, Instytut Psychologii, ul. Szamarzewskiego 89, 60-568 Poznań, Polska
ul. Siekierecka 17, 63-004 Gowarzewo
Tel.: +48 500 107 987
email: agata.szekielda@gmail.com

OBRAZ AUTONOMIE A SEBEREALIZACE ADOLESCENTŮ S MENTÁLNÍM POSTIŽENÍM V DĚTSKÝCH DOMOVECH

AN IMAGE OF AUTONOMY AND SELF-REALIZATION OF ADOLESCENTS WITH MENTAL DISABILITIES IN CHILDREN´S HOMES

Marie Farková

Abstrakt

Studie se zabývá analýzou projevů autonomie a možnostmi seberealizace adolescentů s mentálním postižením ve specifickém prostředí dětských domovů. Terénní výzkumná sonda byla součástí širšího výzkumného záměru disertační práce, byla realizována v období školních roků 2012-13 a 2013-14 na vzorku 18 adolescentů s mentálním postižením (16) a hraničním stavem (2) v 6 dětských domovech a domovech se školou. Pro získání dat byla zvolena metoda polostrukturovaných moderovaných skupinových a individuálních rozhovorů, data byla zpracována otevřeným kódováním. Na základě analýzy výpovědí respondentů bylo identifikováno samostatné rozhodování o kapesném a volnočasových aktivitách. Dalším zjištěním bylo, že adolescenti ne vždy adekvátně vnímají míru potřebné podpory v oblastech každodenních činností, komunikace a kontaktu s vnějším prostředím.

Klíčová slova: *adolescenti, kamarádi, přátelé, kapesné, vychovatelé*

Abstract

The study deals with the analysis of the manifestations of autonomy and possibilities of self-realization of adolescents with mental disabilities in a specific environment of children's homes. Outreach research probe was part of a broader research plan of disertation work and it was implemented during the school years 2012-13 and 2013-14 on a sample of 18 adolescents with mental disabilities(16) and the border state (2) in 6 children's homes and homes with school. For data acquisition method was chosen moderated semi-structured individual and group interviews, data were processed by open coding. We identified on the basis of an analysis of respondents' testimonials, a separate decision about pocket money and leisure activities. Another finding was that adolescents do not always adequately perceive the level of support needed in everyday activities, communication and contact with the outside environment.

Key words: *adolescents, buddies, friends, pocket money, educators*

1 AUTONOMIE A SEBEREALIZACE

Dospělý člověk obvykle činí volby a rozhodnutí, která by měla být oproštěna od nadměrného vnějšího vlivu (autonomie). Adolescenti v dětských domovech vyjadřují autonomii svým rozhodováním o volném čase a o osobách, se kterými volný čas chtějí sdílet v rámci aktivit. Další oblastí, ve které se projevuje autonomie ve formách chování (sebeurčení), je přesvědčení o vlastních schopnostech a víra ve vlastní schopnosti při zvládání potřebných cílů a aktivit.

Prostředí dětských domovů nabízí k uplatnění autonomie a seberealizace méně možností, než mají lidé v běžném prostředí rodiny. Rozhodují se o využití svého kapesného,, o možnostech

uplatnit své schopnosti v zájmových činnostech či vybrat činnost, která je pro ně důležitá. V rozhodování je současně nalézána souvislost mezi tím, co považují za důležité (hodnoty, zájmy) a mezi tím, zda k těmto oblastem směřují také jednotlivé kroky realizace zájmů. Zájem také předpokládá nejen mít volný čas, ale i jisté prostředky, které jsou ochotni v tomto směru investovat. M. Wehmeyer, K Kelchnerová a S. Richards (1996) uvádějí rovněž v této souvislosti projevy chování v sebeovládání, ve schopnosti iniciovat aktivity, ve víře ve vlastní schopnosti (silné i slabé stránky osobnosti a jejich využití). S. Ježek (2014) uvádí mimo jiné autonomii v přehledové studii na toto téma jako možnost jednat volně, stanovovat si cíle, zvládnout své prostředí. Obsahem je tedy naše jednání – aktivita v souladu se sebou samým, být aktérem. O. Matoušek, L. Baldová a H. Pazlarová (2008) uvádějí, že ve výzkumném vzorku více jak 70% respondentů je schopno adekvátně a samostatně pečovat o sebe a svůj zevnějšek. Dohled při těchto aktivitách potřebuje méně jak 20% osob (ve vzorku bylo více jak 40% osob s rozumovými schopnostmi v pásmu podprůměru, respondenti ve věku 11 až 15 let tvořili 12,8%, ve věku 19 až 21 rok 21,1%). Dle F. J. Floyda, C. L. Costiganové a V. E. Piazza (2009) nelze zcela spolehlivě určit, kdy přesně se adolescenti stanou finančně nezávislými, nezávisle smýšlejícími a svobodně se rozhodujícími dospělými osobami. Postupně až do věku 30 let se ale většina osob s lehkým stupněm postižení dle vyjádření rodičů „stane dospělým“. V oblasti volby povolání M. Lečbych (2006, 2008) uvádí, že lidé s lehkým mentálním postižením, kteří absolvovali zvláštní školu, mají jasnější představu o svém budoucím uplatnění. Lidé s postižením, kteří zůstávají v rodinném prostředí, trpí častěji pocity samoty a obtížněji navazují vztahy.

Na druhé straně ale lidé s postižením v dětských domovech a domovech se školou žijí nejen jako vrstevníci či kamarádi a přátelé, ale také jako dospívající, jejichž významnou část vztahů a života tvoří vychovatelé. Ti mají za úkol mimo jiné je nejen korigovat v případných neadekvátně vytvořených vzorcích chování, ale také podpořit či nasměrovat dospívající k poznání jiných možností života a vztahů, než ty, které zažívali během dřívějších období v rodině, .

2 DESIGN VÝZKUMNÉ SONDY, METODA A VZOREK OSOB

V přípravě terénního šetření bylo potřebné uvažovat o možnostech, jak realizovat terénní výzkumnou sondu, ve které by byli dospívající s mentálním postižením aktivními účastníky a jak by bylo možné uzpůsobit postupy tak, aby tito lidé mohli být kompetentní ve výpovědi o svém životě. Možností, jak realizovat záměry, byla kvalitativně pojatá terénní výzkumná sonda. V úvahách o možnostech užití metod a postupů bylo důležité zvážit některé obtíže, se kterými se výzkumnice mohla setkat při realizaci práce v terénu. Po zvážení všech faktorů se jako nejvhodnější jevilo pro celý výzkum užití postupů zakotvené teorie. Pro analýzu výpovědí v této části výzkumu byl zvolen postup otevřeného kódování. Metodou výzkumné studie byly individuální polostrukturované individuální (R1 - 18) a skupinový rozhovor (SR1).

Protipólem pro zjištění skutečného stavu potřebných vzorců jednání ve vztahu k cíli respondentů byly škály potřebné míry podpory, které vyplňovali kmenoví vychovatelé pro každého respondenta zvlášť a mimo rozhovory s respondenty.

Protože vedení zařízení vybíralo pro sondu respondenty dle stanovených kritérií (vzdělávání v učebním oboru E a C, mentální postižení či hraniční stav) je možné označit postup jako kriteriální vzorkování.

Cílem této části terénní sondy bylo zjistit, analyzovat a porozumět:

shodě či rozporu v subjektivně vnímané autonomii a tomu, jak jednotlivé oblasti spatřují „tety a strýcové“ v dětských domovech.

V návaznosti na výzkumný cíl této části sondy byla stanovena výzkumná otázka:

ve kterých oblastech se mohou dospívající z dětských domovů samostatně rozhodovat a ve kterých oblastech je potřebné poskytnout některou z forem podpory.

3 ANALÝZA VZORCŮ CHOVÁNÍ ADOLESCENTŮ V OBLASTI AUTONOMIE A SEBEREALIZACE

Prostředí dětských domovů se školou je více uzavřené, než prostředí domovů bez přídomku „se školou“. Jako důvod bývá presentováno, že klienti mají závažnější poruchy chování, mnozí přicházejí po pobytu v psychiatrických nemocnicích a mají zavedenu medikaci, která vyžaduje dohled. Stejně jako dospívající v běžném typu dětských domovů mají i dospívající možnost čerpat kapesné. Obvyklé bývá, že dospívající v rodině užívají své kapesné ve shodě s oblastí svých zájmů a jsou v této oblasti aktivní. Poznatky k souhrnu jsou čerpány z verbatimu individuálních rozhovorů.

Tabulka 1: Kapesné a zaměření aktivit dospívajících v domovech se školou

Kód	Věk / pobyt	Šetří si / koupí si	Důležitá / zájmová aktivita	Pasivní / aktivní
R1 žena	18 let/13 let	Ne /třeba něco na sebe	Tančí si pro sebe, občas	Aktivní
R2 žena	17 let/12,5let	Ne/ neuvedla	Zvířata (občas), procházky, prolézačky	Pasivní/aktivní
R3 muž	17 let/3 roky	Dříve/sladkosti, cigarety	Vybíjená, fotbal občas	Aktivní
R10muž	15 let/9let	Směňuje! „zboží“ za peníze a následně koupí ipad	Pinkponk, floorbal	Dříve aktivní nyní pasivně
R11muž	15 let/1,75let	Ano/pizza, sladké	Lepí modely vlaků	Aktivně
R12žena	15 let/7 měs.	Ano/kredit, móda	Přítel/časopisy pro ženy	Aktivní

Zdroj: autorka sondy

Z přehledu je zřejmé, že dospívající v dětských domovech rozhodují o tom, na co věnují prostředky ze svého kapesného. V jednom případě ze sdělení vyplývá, že jeden z respondentů má velice dobrou „zkušenost s výměnným obchodem,“ v rámci kterého mu za jistý druh zboží ostatní klienti svěří své kapesné. Vzápětí takto „vydělané“ prostředky směňuje za nový ipad. V tomto případě byla výzkumnice vystavena morálnímu dilematu, zda vedení zařízení informovat o těchto praktikách, či zda tuto informaci uchovat pouze v rámci výzkumného zjištění. Ostatní klienti uvedení v přehledu spíše za své kapesné zakoupí něco, co není běžné v domově. Obvykle jsou to pochutiny, sladkosti i cigarety, případně kredit na telefon, nebo drobnosti pro zdobení se. Vzhledem k výši kapesného na měsíc (podle věku do výše 300 korun) je zřejmé, že tyto prostředky klienti budou jen velice obtížně shromažďovat (šetřit) po mnoho měsíců na zakoupení něčeho, co má vyšší hodnotu. Velice obtížně jsou vytvářeny vzorce chování, které by vedly ke spořivému chování a obezřetnosti v investici prostředků. Je fixován spíše vzorec jednání, které vede k bezprostřednímu uspokojení potřeb. Toto může být jeden z faktorů, který se podílí na vzniku obtíží v oblasti vytváření představ o životních nákladech a zvládání hospodaření s prostředky, a to přesto, že ve školních vzdělávacích programech pro učební obory typu E je zahrnuta oblast finanční gramotnosti.

Další oblastí, o které klienti mohou rozhodovat, jsou vycházky, respektive, zda o vycházku mimo zařízení požádají (či ji oznámí a komunikují souhlas s vychovateli) v případě, že nemají zákaz vycházky. Projevy autonomie jsou regulovány pravidly. Dospívající také rozhodují o osobách, se kterými na vycházku půjdou. Nejčastěji jsou to kamarádky či přítel/přítelkyně.

Zájmové sportovní aktivity, které klienti uvádějí, jsou spíše příležitostnými aktivitami, kterých se klienti účastní aktivně v případě, že se sejde více zájemců. Ostatní aktivity jsou

vyhledávanými činnostmi spíše ze strany jednotlivců, než že by byly vyhledávány několika klienty ve stejné skupině.
Z následujícího přehledu vyplývá, že adolescenti v dětských domovech, ve kterých se výzkumné šetření uskutečnilo, uvádějí významně větší podíl aktivních činností, které jsou spojeny s pohybem.

Tabulka 2: Kapesné a zaměření aktivit dospívajících v dětských domovech

	Věk / pobyt	Šetří si / koupí si	Důležitá /zájmová aktivita	Pasivní / aktivní
R4 žena	17 let/13 let	Ano /drobné oblečení	Vycházky, PC + televize	Aktivní i pasivní
R5 muž	18 let/13 let	Ano/ věci k rybaření	Rybaření, hudba, zem. aktivity	Aktivní i pasivní
R6 žena	17 let/5 let	Ano/dárky,cigarety	Dříve zumba, volejbal, pečení	Aktivně
R7 žena	17 let/ 14 let	Ano/cigarety, nyní boty	Dříve atletika, tanec, hudba	Aktivně i pasivně
R8 muž	18 let/ 6 let	Ano/neuvedl více	Atletika, fotbal, florbal, nohejbal	Aktivně
R9 žena	18 let/15 let	Neuvedla	Flétna, poslech hudby	Aktivně i pasivně
R13muž	17let/0,5roku	Ne /utratí venku	Diskotéky, vycházky	Aktivně
R14žena	17 let/1 rok	Ano/drobnosti	Vycházky s přítelem, četba knih	Aktivně
R15žena	16let/1,6 let	Ne/ koupí cigarety	Vycházky, začala vyšívat	Aktivně
R16muž	17let/11let	Ihned koupí cigarety	Chodit ven	Aktivní
R17muž	18let/8let	Ihned koupí sladkosti	Televize/ drobné ruční práce	Pasivní i aktivní
R18žena	20 let/11let	Ano/drobnosti, sladkosti	Vycházky, televize, muzika	Aktivní, pasivní

Zdroj: autorka práce

V porovnání s poznatky o lokalitách se ukazuje, že v některých dětských domovech klienti preferují spíše sportovní aktivity a v některých lokalitách spíše klienti tendují k volným vycházkám. V lokalitách, kde je domov ve městě, preferují klienti spíše vycházky s přáteli (je více rozmanitých příležitostí a pestřejší nabídka míst, kam je možné si vyjít) a individuální typy aktivit, v lokalitách malých obcí spíše individuální a více sportovně zaměřené aktivity. Ukazuje se ale, že možnost ušetřit z kapesného a neutrácet hned s lokalitou domova nesouvisí. Klienti v malých místech i větších centrech mohou tendovat k okamžitému nákupu. Schopnost odložit realizaci přání může spíše souviset s osobnostními charakteristikami.

V porovnání s výsledky uvedenými P. Mackem (1999) je zřejmé, že klienti v dětských domovech ve vzorku respondentů terénní výzkumné sondy (tabulka 2) vykazují větší podíl aktivně zvládaných činností zaměřených na pohybové aktivity (sporty a vycházky) a kontakt s důležitými osobami (vrstevníci, důvěrní či intimní přátelé). Varianty pasivních činností (sledování televize, PC) se vyskytují méně často ve vzorku osob z dětských domovů. Ve výrocích klientů o obrazu každodennosti i u adolescentů v této skupině je významný podíl obstarávání činností spojených s péčí o sebe a své okolí.

3.1 VNÍMANÁ POTŘEBA PODPORY (NEJISTOTY) ZE STRANY DOSPÍVAJÍCÍCH

I v životě dospělých lidí se vyskytují situace, na jejichž zvládnutí nestačí síly jednoho člověka. Klientům v individuálních i skupinových rozhovorech byly kladeny otázky, které směřovaly ke zjištění, zda a v jakých oblastech si uvědomují, že jejich síly patrně nebudou stačit a které osoby by v takových situacích preferovali s žádostí o pomoc. Ilustrativní je souhrnné vyjádření jednoho z respondentů.
(Na koho by ses obrátil, kdybys potřeboval pomoc? Třeba s radou nějakou, kdo by ti poradil?)
R5 – 366 a dále.
„*Určitě bych se neobracel na banku s půjčkami, to vůbec. Jelikož to vím, jak to chodí. Žádný půjčky, rozhodně spíš asi od kamarádů, kterýmu nevadí, když mám zrovna problémy, že prostě mu to můžu vrátit třeba dýl, za rok klidně.*“
(A kdybys potřeboval nějakou radu?)

„No radu. Za kamarádem, anebo i klidně sem do domova bych se mohl obrátit na strejdu, na ředitele. Klidně. No já myslím, že jo. Jelikož ono to, oni mi tady sami nabízeli, kdybych potřeboval v životě pomoc. Že jsme měli taky diskuzi, že vím, že by mi pomohli, kdyby se něco pokazilo. Jelikož nemá někdo takovouhle možnost, a kdyby něco pokazil, tak nevím co bych dělal…Buď kamarád, nebo strejda, když už při nejhorším. Nebo jsou na to jako poradny právnický. Potom i na sociálku se chodí…Skrz poradu. Jako je plno úřadů, kde poradí. To budeme asi ještě probírat v občance ve třeťáku, tuším, jako tyhle ty věci. To my probíráme, jakože taky k závěrečkám, abysme si dokázali poradit. To máme taky v osnovách školy. Takže myslím, že i škola mi pomůže s tím, jak co se naučit a jak. Jelikož mi máme jako ekonomiku a občanku, a to budeme mít k závěrečkám právě, jak se o sebe postarat a tak. Takže to máme dobrý naštěstí tydle ty předměty… No že kdybych třeba jako měl problémy, já nevim, v zaměstnání, ani problémy ne, to jako bych se snažil. Zda vůbec najdu byt, zda vůbec najdu práci, to jsou dva problémy velký dneska. Bohužel, toho se bojím nejvíc. Právě proto sem si napsal ze začátku roku tu práci a to všechno. Čím dřív, tím líp. No ještě potom. Potom ještě bojím se hlavně, abych zvládal všechno na úřadech, ty papíry. Protože toho se bojím hodně, abych jako nepopletl nějakou smlouvu s nějakou jinou. Aby se mi to nezapletlo. Tak právě proto chci mít na to přihrádky, ale i tak to nemusí pomoct a můžu zaplatit něco blbě. A člověk je z tohodle celkem zmatenej a bojí se toho hodně, že se splete a potom, až se to splete, tak to už jde těžce vrátit. Když se něco podepíše blbě. Tak právě proto občas si když jsou jako třeba bezplatný právnický poradny, tak si tam někdy zajít, když něčemu nerozumím. To jako jde taky, to je dneska možnost taky…Buď anebo taky přímo se radši zeptat na tom úřadě, radši třikrát se zeptat, než třeba nevědět vůbec nic.“

(A kdyby se už dělo něco špatnýho, jakoby třeba, já nevim, ztratil jsi práci, neměl jsi na nájem, nebo něco se dělo?)

„*No tak toho se taky hodně bojím“.*

Z rozhovoru je patrné, že respondent má výraznou míru znalostí a přes obavy, které provázejí pohled do budoucnosti, volí strategie, které by mohly být efektivní.

Dospívající uváděli nejčastěji mezi preferovanými oblastmi byt, peníze a práci. Hodnoty, které představují jejich vyjádření, nejsou příliš odlišné od hodnotové orientace vrstevníků v intaktní společnosti, jak uvádí P. Macek (1999). Peníze jsou pro adolescenty druhou nejčastější starostí a mít peníze znamená vrstevnickou prestiž. Adolescenti v domovech v terénní sondě uvádějí rovněž druhé pořadí ve svých výrocích. Představy některých respondentů byly neadekvátní situaci, ve které se nacházeli. V těchto představách se klienti shodují s tím, co uvádí M. Vágnerová (2004), totiž, že u adolescentů s mentálním postižením se může vyskytovat neadekvátní sebehodnocení a neadekvátní představa o vlastních možnostech.

„*Potom, já nevim, prostě to bydlení, nebo takhlenc, že jo prostě. Abych už to měla zařízený.“* SR 3 – 443

(A jak rychle si myslíte, že byste to zvládla?)

„Tak jako záleží na tom, jak by to rychle mělo bejt, nebo kdyby to třeba mělo bejt do týdne, tak to bych musela pracovat. Furt, abych prostě to dala do toho tejdne.“ SR2 – 288

(Ale když si vyděláš potom pět tisíc?)

„*To je zas málo. Z toho bych vůbec nevyžila. Já se toho bojím.* (A čeho?)

Že bych pak byla sama a nezvládala bych to třeba. Že bych třeba měla málo peněz na zaplacení toho nájmu a tak…Tak bych zavolala třeba mámě svý. Nemá už taky nějakej barák, tak bych šla k ní třeba. (Ale tím bys nevyřešila třeba ty dluhy. Šla bys za někým se třeba poradit?) *Za nějakou tou psycholožkou nebo poradkyní nebo jak se to jmenuje. Nějakou poradkyni…Bych zavolala strejdovi nebo tetě. Bych jí zavolala, třeba že bysme se sešli někde. A tak bych si s ní promluvila.“* R4-250 a dále.

Neadekvátní představy se mohou týkat oblasti zisku práce a kompetencí, které s procesem získávání a ucházení se o práci souvisí.
(Jak se to udělá, když chce člověk získat práci?)
„*Musí prostě dojít za tím pánem, nebo za tou paní. Šéfem. To je jedno, ale je požádat, aby prostě do tý práce ho vzali. Jestli má udělanou školu. Musí mít pohovor. Musí se dobře oblíknout na ten pohovor. Nesmí tam jí roztrhanej.* (Už jsi někdy psala životopis? Zvládla bys to?) *Já ne. Já bych to asi nenapsala. Já bych… Tak já bych šla asi za kámoškou, aby mi pomohla. Já by sem šla taky za kámoškou, nebo bych šla za mamkou. Kdybych tam měla domov. Anebo bych šla tady na děcák. Za kamarádem.“* SR 1-260 a dále.

V uvedených výrocích jsou patrné sice jisté poznatky, jsou spíše fragmentované, než ucelené. Je patrná absence praktické zkušenosti. (V rozhovoru se rovněž manifestuje představa role fiktivní matky, ale také bolest z její neexistence.)
M. Vágnerová (2004) uvádí, že adolescenti s mentálním postižením mohou mít nižší míru frustrační tolerance, pokud jejich představy o realitě nejsou naplněny, případně se jim nedaří dosáhnout cíl, který si vytýčili. V situacích frustrace někteří dospívající reagují i výraznějšími projevy emocí a narušením seberegulace. Někteří lidé mohou reagovat v kontaktu s novými situacemi či problémy naopak více závislým způsobem. Výrazně častěji, než ostatní, mohou vyhledávat pomoc druhých lidí. M. Lečbych (2008) uvádí podobná zjištění v situaci, kdy člověk s mentálním postižením pociťuje, že svoji situaci nemůže změnit, nejsou vybudovány odpovídající varianty zvládání a jako jedna ze strategií zvládání se objevuje také vzdor. Je proto důležité, aby dospívající měli dostatek příležitostí k vybudování strategií, které vedou ke zvládání situací. Kromě jiného souvisí zvládání situací s volbou odpovídajících cílů a v případě jejich dosažení je výsledným pocitem spokojenost.

3.2 VNÍMANÁ POTŘEBA PODPORY ZE STRANY VYCHOVATELŮ

Pro získání „pohledu z druhé strany“ byli osloveni vychovatelé a žádostí o vyplnění škály podpory se vztahem k jednotlivým respondentům.
M. Lečbych (2008) přeložil škálu na zjišťování míry podpory u adolescentů a mladých lidí s mentálním postižením z původního zdroje Americké asociace pro mentální postižení. K užití této škály jako metody pro terénní výzkumnou sondu bylo nezbytné ji upravit pro adolescenty z domovů. Původní experimentální škála M. Lečbycha zahrnuje bodové hodnocení s pěti stupni podpory, které jsou upraveny do následující podoby tří stupňů.

- Téměř žádná podpora (obsahuje původní stupeň 0 a 1) nyní zahrnuje také dohled. Tento stupeň se běžně vyskytuje u adolescentů bez postižení v domácím prostředí, kdy rodiče jen občas dohlédnou na chování a návyky svých potomků a všechny oblasti dozrávají v běžném vývoji.
- Lehká podpora (původní stupeň 2 a 3) obsahuje instruktáž a částečnou pomoc. Tento stupeň znamená, že dospívající bude potřebovat slovní instrukci nebo opakovanou ukázku činnosti, případně drobnou dopomoc. Potřebný vzorec není zcela stabilizovaný. Zde je potřebné zvážit čas, po který bude potřebná podpora nezbytná a při jejím poskytování bude vhodné využít patřičné odborné metody.
- Naprostá podpora (původní stupeň 5) znamená podporu sestávající z pomoci. Adolescent je na ní závislý a nejsou vytvořeny patřičné vzorce. Zde bude potřebné uvažovat i o dlouhodobém trvání podpory a užití nejen speciálně pedagogických metod. Potřebné vzorce zvládání praktických dovedností mohou být ve vývoji pouze naznačeny.

Souhrn stupňů podpory obsahuje oblasti sebeobsluha, pracovní aktivity, transfery, organizaci a další aktivity ve skupině v rámci zařízení, širší sociální prostředí, oblast zdraví, seberegulace, financí a projevy autonomie.

Aby bylo možné porovnat data ze škály s ohledem na délku pobytu klientů v domovech, jejich věk a typ domova, je vytvořen souhrn dat z popisu vzorku respondentů s patřičným kódovým označením.

Tabulka 3: Souhrn charakteristik respondentů dle věku, délky pobytu a typu domova

Respondent, věk/délka pobytu	Dětský domov	Dětský domov se školou
Do 3 let	**R13** 17let/6 měsíců **R14** 17let/1 rok **R15** 16let/1,6 roku	**R3** 17 let/3 roky **R11** 15let/1,75roku **R12** 15let/7 měsíců
Do 10 let	**R6** 17let/5 let **R8** 18 let/6 let **R17** 18 let/8 let	**R10**15let/9 let
Nad 10 let	**R4** 17 let/13 let **R5** 18 let/13let **R7** 17let/14let **R9** 18let/15let **R16** 17 let/11 let **R18** 20let/11 let	**R1** 18 let/13 let **R2** 17 let/12,5roku

Zdroj: autorka sondy

Z přehledu je patrné, že významná část respondentů v terénním šetření je z dětských domovů a s mnohaletým pobytem v institucionální výchově. Do 3 let pobytu jsou shodně zastoupeni respondenti z domovů obou typů. Přehled by měl usnadnit orientaci v následujícím shrnutí stupňů a oblastí podpory v některé z funkčních oblastí.

Tabulka 4: Souhrn oblastí a stupňů poskytované podpory adolescentům v domovech

Oblast podpory	Žádná	Lehká	Naprostá podpora
Sebeobsluha	R12, praní R14 uložení R14, R15 snídaně R14 žehlení R15	šaty R1, R2, R3, R5, R6, R7, R8, R13, R14,R13, vaření R1,R2, R3, R4, R5, R6, R15, úklid R1, R4, R5, R6, R7, R9, R15, snídaně R3, R4, R5, R6, R13, spotřebiče R4, R6, R7, R8, R9, R10, R14, R15 hygiena R5, R13, R13, praní R5, R6, úprava sebe i okolí R9, R14,	šatyR11, R13, vaření R11,R13, snídaně R11, úklid R11, spotřebiče R11,
Pracovní aktivita	R1, R12, R14,	aktivita R2, R3, R4,R5, R6, R7, R8, R9, R10, rychlost R2, R3, R4, R5, R6,R8, R10, R15, kvalita R2, R3, R4, R5, R7, R8, R9, R10, R15,	kvalita R6, R11, R13 aktivita R11, R13, rychlost R11, nedokončí R13
Organizace, transfery	R12	rekreace R1, R2, R3, R4, R7, R8, R9, organizace R1, R3, R6,R7, R8, aktivity R1, R4,R6, R7, R8, R9, R11, R14,R15, personál R1, R5, R7, R11, R14, R15, instituce R1, R2, R3, R4, R5, R6, R8, R11, R14, R15, interakce druzí R5, R6, R10, R11, R15, rodina R6, R8, R15, separace R14,	interakce personál R8, R13, transport R11, rekreace R11, děti R13, úřady R13
Sociální	R12 R14	socializace R1,R2, R3, R6, R8, volnočas R1, R3, R5, R6, R7, R8, R9, R15,R dovednosti R1,R2,R4,R5,R6 R7,R8,R9, R11, R15, lokalita R2, R8, R9, R11, přátelství R2, R3, R5, R6, R9, R11, R15, skupina R5, R11, R15, komunikace R5, R7, R8, R9, R11, R15,	volný čas R13 přátelství,R13 chování jinde, R13 komunikace, R13, sociální dovednosti R13
Zdraví	R12 R14	léky R1, R2, R4, R6,R11, R13, R15, rizika R1, R2, R4, R8, R11,R15, výživa R1, R4, R5, R6, R7, R9, zdraví R1, R5, R7, zdatnost R2, R4, R6, R7, R9, komunikace R3, dovednosti R3, docházení R8, služby R11,	ambulance R2, služby R2, výživa R2, R11, R13, obstarávání R8, zdatnost R11, R13,
Seberegulace	R12	emoce R1, R7, R8, R11, R13, R15, sebeřízení R1, R4, R5, R6, R7, R10, R11, R15, intimita R3, R7, R8, R9, R13, emoční pohoda R4,R5, R6,	emoce R2, R3, sebeřízení R2, R3, R13, intimita R2, R11, R14, R15

	R14		
Finance, právo	R12	peníze R1, R2, R3, R4, R5, R6, R7,R8, R9, R11, R14, R15 sebeřízení ve financích R10, hájit své finance R11	zneužití R3, právo R3, peníze R13 odpovědnost R8, rozhodování R8,
Autonomie	R12	zneužití R1, R5, R6, R7, R8, R9,R14, R13, R15 rozhodování R1, R3, R4, R5, R6, R7,R9, R11, R10, R14, R13, R15, zodpovědnost R1, R3, R4, R5,R6, R8, R9, R11, R10, R14 hájení sebe R1, R2, R3, R6, R7, R9, R14,R13, hájení druhýchR1,R2,R3,R6,R7,R8 R9,R11, R10 , právo R4,R6,R11,R10 vlastní volba R8, služby R14,	zneužití R2, právo R2, rozhodování R2, zodpovědnost R2

Zdroj: autorka sondy

Z předloženého souhrnu vyplývá několik poznatků. Předně pro podstatnou část respondentů je nezbytná lehká podpora ve smyslu instruktáže, pokynu či drobné dopomoci ve většině oblastí. Není ale současně možné odvozovat, že je tomu tak z důvodu dlouhodobého pobytu v zařízení. Naopak, ve vzorku respondentů se ukazuje, že právě ti, jejichž pobyt je delší než 3 roky, mají více praktických dovedností a návyků, než klienti, kteří jsou v domovech krátký čas. Výjimku tvoří respondenti R12 a v některých oblastech také R 14 a R15. Tito dospívající patrně ve svém rodinném prostředí i přes všechny obtíže měli zakotveny základy návyků a praktických dovedností ve sledovaných oblastech.

Tato zjištění ale nejsou v souladu s výsledky terénní sondy Oldřicha Matouška, Lenky Baldové a Hany Pazlarové.
Ve srovnání s výsledky výzkumu M. Lečbycha (2008) se ukazuje, že obdobné výsledky v oblasti potřeby podpory vykazovali respondenti i v jeho vzorku, a to navzdory skutečnosti, že někteří z nich byli již ve věku významněji překračujícím 20let. V pořadí, které M. Lečbych uvedl, byla potřebná podpora respondentů v oblasti hospodaření s penězi (uváděná na 2. místě), trénink v oblasti sebeobsluhy (4. pořadí), vaření, příprava jídla a úklid a chod domácnosti (7. a 8. pořadí). Podstatnou odlišností ale je, že tuto potřebu podpory si respondenti v Lečbychově výzkumu uvědomovali, kdežto ve vzorku respondentů z domovů pokládají dospívající tyto oblasti za méně důležité. Přesvědčení o zvládání těchto oblastí pokládají za aktivitu výlučně spojenou s autonomií (ve smyslu samostatnosti) a pocitem vlastní kompetence.

4 ZÁVĚR

V průběhu realizace šetření měla výzkumnice možnost pozorovat, jak výrazně kvalita prostředí a působení vychovatelů ovlivňovalo chování respondentů a jaké možnosti poskytovalo ve směru získávání a upevnění praktických dovedností v péči o sebe a samostatnost v této oblasti.
Na rozdíl od vrstevníků v rodinách jsou respondenti vedeni k tomu, aby si obstarávali samostatně všechny oblasti běžné činnosti, které v rodině vrstevníků s postižením i v intaktních skupinách obvykle obstarávají rodiče. Praktické návyky pro život (praní, vaření a příprava jídla, úklid, nakupování) jsou cílem výchovných snah vychovatelů a ne všichni dospívající tyto činnosti vítají. Někteří je chápou jako nepříjemnou část dne, na kterou nebyli zvyklí z domova. Proto také dalším významným zjištěním terénní sondy je, že adolescenti, kteří jsou v domovech krátce, tyto oblasti nemají naprosto zvládnuty (až na jednotlivé výjimky). Ukazuje se tak, že část autonomie, kterou dospívající požadují a definují ve smyslu samostatnosti, není identifikována jako nezbytná součást života v oblasti praktických dovedností.
Autonomie respondentů se projevuje v rozhodování o volném čase, o zájmovém zaměření a o kapesném. Vzhledem k jeho výši v měsíci přibližně polovina respondentů na jedné straně nešetří kapesné a utratí je za věci, které nejsou běžně v domovech poskytovány (sladkosti, drobné předměty, ale také cigarety). Na druhé straně část respondentů nemá vytvořenu představu o nákladech života a chybějící návyk šetřit je jedním z možných důvodů, proč

podléhají nástrahám „potřebných“ věcí v životě, ač je jistá míra finanční gramotnosti tématem vzdělávání v učňovských oborech, případně tranzitních programů určených právě pro domovy.
Rovněž komunikace s oficiálními institucemi a vytváření dovedností v této oblasti je nejen respondenty, ale i jejich vychovateli vnímána jako nejistota a nutnost ji zvládnout jako obava do budoucnosti.
Dětské domovy a domovy se školou (zařízení z výzkumné sondy) a zvláště vychovatelé vytváří dlouhodobě potřebné dovedností pro samostatný život a jejich role v případě nezbytného umístění do zařízení je nezastupitelná.
Na základě zjištěných poznatků si výzkumnice dovoluje (i když s opatrností) vyslovit následující hypotézu:
„ *adolescenti s mentálním postižením v dětských domovech a domovech se školou jsou individuálně závislí na podpoře (od občasného dohledu po kontrolu a pomoc) ve výrazné většině sledovaných oblastí nutných pro zvládání vlastního života nejen pro aktuální život v domovech, ale zvláště pro období, kdy se budou vracet do běžného prostředí. Zvláště oslabeni se ve vzorku adolescentů ukazují ti, kteří jsou v domovech krátký čas. Vytvoření dovedností je proces dlouhodobý.“*
Pro budoucnost adolescentů a budoucích mladých dospělých s postižením bude po odchodu do života nezbytná individuální podpora ze strany poradenských center. Je v zájmu společnosti vytvořit jejich dostatečnou síť.

Použitá literatura

1. FLOYD, Frank J., COSTIGAN, Catherine L., PIAZZA, Vivian E. *The Transition To Adulthood For Individuals With Intellectual Disability.* In: International Review of Research in Mental Retardation. [online] Elsevier, Academic Press, 2009, vol. 37, p. 31-59. [vid. 2014-05-21] ISBN 978-0-12-366234-7. Dostupné z http://www.sciencedirect.com/science/article/pii/S0074775009370020.
2. JEŽEK, Stanislav. Aktuální pojetí autonomie v Psychologii. In: *Československá psychologie.* Praha: Academia, 2014, ročník 58, číslo 1, s. 31-40. ISSN 0009-062X.
3. LEČBYCH, Martin. *O životě ve zlaté kleci*. In: Dobromysl.cz. [online] 2006. [vid. 2014-12-01] Dostupné na: http://www.dobromysl.cz/scripts/detail.php?id=999.
4. LEČBYCH, Martin. *Mentální retardace v dospívání a mladé dospělosti.* Olomouc: Univerzita Palackého v Olomouci, Filozofická fakulta, 2008. ISBN 978-80-244-2071-4.
5. MACEK, Petr. Adolescence*: psychologické a sociální charakteristiky dospívajících.* Praha: Portál, 1999. ISBN 80-7178-348-X.
6. MATOUŠEK, Oldřich, PAZLAROVÁ, Hana, BALDOVÁ, Lenka, 2008. *Individuální plánování služeb u ohrožených dětí a mládeže s důrazem na mladistvě odcházející z ústavní výchovy*. Praha: Člověk hledá člověka. ISBN 978-80-254-2756-9.
7. VÁGNEROVÁ, Marie. *Psychopatologie pro pomáhající profese*. 3.vyd., rozš. a přeprac. Praha: Portál, 2004. ISBN 80-7178-802-3.
8. WEHMEYER, Michael, Lee, KELCHNER, Kathy, RICHARDS, Sandy, 1996. Essential Characteristics of Self Determined Behavior of Individuals With Mental Retardation. *American Journal of Mental Retardation*, Volume 6, Number 100, p. 632-642., pdf.© American Association on Mental Retardation.

Kontaktní údaje

PhDr. Marie Farková, Ph.D.
Univerzita J. A. Komenského
Roháčova 63, 130 00 Praha
Email: farkova.marie@o365.ujak.cz, Telefon 723 767 281

INTERAKČNÝ PRÍKLON VS. INTERAKČNÝ ODKLON VO VYUČOVACO-UČEBNÝCH ČINNOSTIACH VÝUČBY

INTERACTION INCLINATION VS. INTERACTION DECLINATION WITHIN THE TEACHING AND LEARNING ACTIVITIES IN SCHOOLING

Peter Ostradický

Abstrakt

Výskumná štúdia prináša teoreticko-empirické poznatky o prítomnosti a príčinách prijatia názoru a myšlienky a odmietnutia názoru a myšlienky vysokoškolských učiteľov a študentov učiteľských smerov vo vyučovaco-učebných činnostiach vysokoškolskej výučby. Kvalitatívnymi metódami pozorovania, hĺbkového interview a metódou konštantnej komparácie autor skúmal prítomnosť, ako aj pátral po príčinách a dôsledkoch interakčných príklonov a odklonov vysokoškolských učiteľov a študentov učiteľstva vo vysokoškolskej výučbe.

***Kľúčové slová**: vysokoškolský učiteľ, pedagogické myslenie, študent učiteľstva, didaktická interakcia, interakčný príklon, interakčný odklon, vyučovaco-učebné činnosti, vysokoškolská výučba, koncepcia výučby*

Abstract

The paper presents theoretical and empirical evidence about the presence of entities of interaction inclination and interaction declination between higher education teachers and undergraduate students of teaching within the teaching and learning activities in schooling with a main focus on the causes of its presence in teaching, schooling. The author studied this phenomenon via methods of qualitative methodology such as qualitative observation, in-depth interview and method of constant comparison.

***Key words:** university teacher, teacher thinking, student of teaching, didactic interaction, interaction inclination, interaction declination, teaching-learning activities, higher education, teaching concept*

1 ÚVOD

Vzhľadom k stále silnejúcej potrebe zmien v nahliadaní na úlohy subjektov výučby a ciele vo vyučovacom procese je intenzívne skúmanie (elaborovanie) tohto procesu v celej jeho komplexnosti viac ako naliehavé. Skúmanie vyučovacieho procesu je rovnako zložité (komplexné) ako samotný proces. Komplexnosť tohto procesu pramení v množstve faktorov, ktoré doň vstupujú a ovplyvňujú jeho charakter, ciele, ako aj výsledný efekt. Predpokladáme, že čitateľ si multidimenzionalitu vyučovacieho procesu dobre uvedomuje, a preto zámerom štúdie nie je len poskytnúť súhrn definícií poukazujúcich na tieto znaky, ale najmä prezentovať kvalitatívnu analýzu činiteľov, ktoré bolo možno v rámci interpretácie výskumných dát zaradiť do kategórie interakčných príklonov alebo naopak zaradiť do kategórie interakčných odklonov medzi vysokoškolským učiteľom a študentom. Naliehavosť a aktuálnosť vedeckého skúmania (vysokoškolskej) výučby v tu prezentovanej štúdií vychádza najmä z autorovho uvedomovania si hodnoty výskumných aktivít, ktoré prispievajú k budovaniu platformy dávajúcej priestor pre sebareflexiu vysokoškolských učiteľov. Autor

štúdie sa stotožňuje s výstižným uvažovaním o fenoméne sebareflexie učiteľa, ktoré uvádzajú (Tóthová, Kostrub et al., 2017, s.319), nasledovne: „*Vysokoškolský učiteľ ako reflektujúci tvorca, praktik, kritik, výskumník – bádateľ vlastnej didaktickej praxe má uskutočňovať (seba)reflexiu, ako proces rekonštruovania vlastnej profesijnej skúsenosti. V školstve, v rámci zmeny koncepcie výučby alebo jej podstatnej časti, je akčný výskum reálnym nástrojom zmeny evokovanej zvnútra, vychádzajúcej z profesijných potrieb a záujmov vyučujúcich. Subjekty si uvedomujú reálnosť napĺňania cieľov zmeny, hľadajú konkrétne možnosti, angažujú sa v získavaní informácií, vzájomne konzultujú, koncipujú projekt vrátane konkrétneho konania vyvolávajúceho zmenu a udržateľnosť výsledkov navodených zmenou.*“ Porozumenie inter a intrasubjektivistickým interpretáciám subjektov vysokoškolskej výučby o ich vyučovacích a učebných činnostiach vo výučbe umožňuje odhaliť rodiace sa a meniace sa individuálne koncepcie výučby vysokoškolských učiteľov, ako aj študentov učiteľstva. Pedagogické myslenie, či učiteľove uvažovanie o výchovno-vzdelávacom procese (ďalej len výučbe), predstavuje súbor jeho predstáv, ideí, postojov, presvedčení, predsudkov a názorov a p. na javy v edukačnej realite, ktoré sú najčastejšie determinované jeho skúsenosťami a tie sa bezprostredne odzrkadľujú nie len vo všetkých jeho činnostiach vo výučbe (interakcii), ale aj mimo nej. Súvislosť s individuálnou koncepciou učiteľa, determinovanou predovšetkým jeho pedagogickým myslením, s efektívnou transformáciou výučby výstižne charakterizuje (Malík 2012, s. 262), nasledovne: *„Pedagogické myslenie historicky koreluje aj s vývinovými zmenami školy ako inštitúcie, vrátane zmien jej funkcií a rolového repertoáru učiteľa, vynútenými zmenenými kultúrno-historickými pomermi.“* Domnievame sa, že v uvedenej definícii o procese pedagogického myslenia môžeme identifikovať dve základné línie. V prvej línii autor uvažuje o pedagogickom myslení všeobecne vo vzťahu k funkciám školy, ktoré si vyžadujú modifikáciu, vyplývajúcu zo zmien v spoločnosti a v druhej línii autor pedagogické myslenie konkretizuje na oblasť pedagogického myslenia (uvažovania) učiteľa o jeho *„rolovom repertoári“* vo výučbe. Učiteľovo myslenie ďalej špecifikuje (Průcha 2009, s. 195), keď uvádza, že učiteľovo myslenie: *„Je z časti spoločné pre všetkých príslušníkov profesijnej skupiny, z časti je individuálne variabilné, z časti uvedomované, z časti neuvedomované, má z časti kognitívny (vedomostný) základ, z časti má emotívny charakter.“* Uvedené členenie Průchu považujeme za kľúčové vzhľadom k predmetu a cieľu predkladanej štúdie, ako aj vo vzťahu ku aplikácii konštruktu kvalitatívna metodológia, ktorý poslúžil pre zber a interpretáciu výskumných dát. Štúdia sa zameriavala na teoretické spracovanie (deskripciu), empiricky skúmaných didaktických fenoménov, ktoré sú prítomné v procese výučby, a to najmä počas didaktickej interakcie, ktorá nastáva medzi subjektmi výučby. Táto práca mala za cieľ kvalitatívne skúmať a analyzovať interakčný príklon (prijatie myšlienky, názoru a p.) a interakčný odklon (odmietnutie názoru a p.) učiteľa a žiakov v pozorovaných vyučovaco-učebných činnostiach vo výučbe. Cieľom bolo identifikovať, ktoré z prejavov konania učiteľa a študentov možno zaradiť do kategórie príklonov, ktoré možno naopak zaradiť do kategórie odklonov, ako i na základe uvedomenia si reálnych podmienok pátrať po ich príčinách prostredníctvom metód pozorovania a interview. Svoju oblasť skúmania sme špecifikovali na podmienky vysokoškolskej výučby a s ňou súvisiacu prípravu pedagogických zamestnancov pre učiteľstvo pedagogiky v kombinácii. Nami aplikované metódy kvalitatívneho skúmania v podobe pozorovania didaktickej interakcie vo výučbe a uskutočneného interview s vysokoškolskými pedagógmi nám umožnilo získať hodnotné výpovede o didakticko-interakčných procesoch prítomných vo výučbe, ako aj výpovede o prístupoch k výučbe determinujúce priebeh didaktickej interakcie. V rámci interview sme pátrali najmä po príčinách, ktoré ovplyvňujú charakter a priebeh didaktickej interakcie vo výučbe, ako aj po príčinách ovplyvňujúce nazeranie, uvažovanie subjektov výučby o vyučovacom procese. Cieľom tejto štúdie je sprístupniť čitateľovi podstatnú časť priebehu a výsledky výskumu v ich, ako aj uviesť čitateľa do výskumnej problematiky v teoretickej

rovine. Uvedomujeme si, že oblasť didaktickej interakcie je pedagogikou ako vednou disciplínou podrobne skúmaná a výsledky mnohých výskumov sú čitateľom prístupné v množstve publikácii, no domnievame sa, že oblasť didaktiky pre vysoké školy si vyžaduje intenzívnejšie a najmä neustále skúmanie. Naše domnienky utvárame na základe potrieb neustáleho skvalitňovania pregraduálnej prípravy pedagogických zamestnancov. Usudzujeme, že výskumy zacielené na analýzu didaktických procesov prítomných vo vysokoškolskej výučbe umožňujú identifikovať kritické momenty, ktoré značne ovplyvňujú nie len priebeh výučby, štúdia, ale aj uvažovanie kandidátov na učiteľskú profesiu o tom, či vôbec a v akej kvalite svoje nadobudnuté poznatky uplatnia v učiteľskej praxi. Zároveň však chceme zdôrazniť, že naším cieľom nebolo identifikovať prejavy interakčného príklonu alebo odklonu učiteľa a žiaka vo výučbe z dôvodu posudzovania kvality vysokoškolskej výučby, ale z dôvodu pátrania po príčinách prítomnosti tohto fenoménu vo výučbe.

2 PEDAGOGICKÉ MYSLENIE UČITEĽA A JEHO PREMIETNUTIE DO DIDAKTICKEJ INTERAKCIE

V tejto kapitole sa sústredíme na vymedzenie pojmu učiteľove poňatie výučby alebo ako ho nazývajú niektorí autori aj učiteľove pedagogické myslenie či dokonca pedagogické vedomie učiteľa. Naším cieľom je nie len tento pojem len charakterizovať, ale aj preukázať spojitosť v uvažovaní učiteľa o výučbe s jeho prístupom k výučbe, didaktickej interakcii, ako aj so zmenami v jeho nazeraní na svoju úlohu a úlohu učiacich sa subjektov vo výučbe. Procesy učiteľovho uvažovania o sebe samom v kontexte výučby a podmienky, v akých k nemu dochádza charakterizuje aj (Kostrub 2008, s. 9) takto: *„Perspektívy nazerania na vlastný vyučovací proces učiteľa, na proces učenia sa a rozvoja detí/žiakov/študentov a na celkový proces výučby sú konfigurované v celom období profesionálnej skúsenosti každého učiteľa“* Proces konfigurácie týchto perspektív prebieha intersubjektivisticky (skryto) a výsledky tejto konfigurácie sú premietnuté, odhalené vo vyučovací činnostiach učiteľa (didaktickej interakcii). Neostávajú nemenné, ale *prebiehajú v celom období profesionálnej skúsenosti každého učiteľa.* V kontexte s didaktickou interakciou autor štúdie vidí isté paralely v podobe skrytých, naznačovaných a často neuvedomovaných interpretáciách učiteľa o sebe samom alebo učiacich sa subjektoch a jeho didaktickej intervencii vo výučbe. Gavora túto dimenziu špecifikuje, keď hovorí aj o *„skrytých učebných osnovách*“ a podľa jeho slov podstatu môžeme vidieť v tom, že: *„Kým oficiálne učebné osnovy existujú v podobe písomného dokumentu, skryté učebné osnovy sú, naopak nepísané, a, ako sme už povedali často ani neuvedomované. O to silnejšie však pôsobia.“ Gavora* ďalej špecifikuje, že: *„Skryté učebné osnovy sa realizujú výlučne prostriedkami komunikácie medzi učiteľom a žiakmi navzájom, a to verbálne i neverbálne – často náznakovo implicitne.“* (Gavora 2003, s. 33). V rámci vzťahovej prepojenosti didaktickej interakcie a pedagogického vedomia učiteľa (Gavora 2003, s. 33), upozorňuje na aspekt *sociálnej konštrukcie života*, o ktorej uvažuje takto: *„Učiteľ a žiaci si spoločne vytvárajú, konštruujú vzájomné porozumenie, ktoré je potrebné pre spoločný život.“* Ďalej svoje uvažovanie rozvíja, keď tvrdí: *„Učiteľ postupne naznačuje žiakom, ako on chápe rôzne významy: ako chápe disciplinovanosť, čo považuje za naučenie poznatku...“* Rovnako vymedzuje aj proces vytvárania významov u žiaka, žiakov: *„Aj žiak si vytvára významy, ktorým musí učiteľ rozumieť: Jeho mlčanie znamená neviem alebo to znamená trucovanie...“* Tieto často nie zjavné aspekty prítomné v komunikácii a didaktickej interakcii boli predmetom nášho skúmania a môžeme ich charakterizovať ako aspekty, ktoré nie sú na prvý pohľad pre výskumníka, učiteľa, študenta explicitne identifikovateľné, uvedomované, ale ich prítomnosť značne vplýva na priebeh všetkých činností vo výučbe. Ich vplyv sa však vzťahuje nie len na porozumenie informáciám, myšlienok, pocitov, ktoré si dva subjekty medzi sebou odovzdávajú v konkrétnej situácii a v konkrétnej podobe, ale determinujú aj porozumenie sebe samému. Uvedomenie si mechanizmov vlastného

uvažovania o skutočnostiach v širšom kontexte, ako aj o sebe samom, značne ohraničuje podobu budúcej interakcie a pozíciu subjektov v nej. Pod pojmom pozícia subjektov máme na mysli uvedomelý či neuvedomelý postoj (odmietnutie, zavrhnutie, ignorovanie, prijatie, sympatia, náklonnosť) subjektov k informáciám, pocitom, myšlienkam, ktoré si medzi sebou vymieňajú a odovzdávajú. Podobne o podobách pedagogickej komunikácie a didaktickej interakcie uvažujú aj (Vališová, Kasíková et al., 2011, s. 227), keď tvrdia, že: „ *Tak ako proces interakcie i proces komunikácie je buď jednostranným (jej jadrom je len prosté odovzdanie skutočnosti jednej osoby druhej alebo viacerým osobám), alebo obojstranný, pri ktorom osoba, ktorá používa komunikačné symboly, prijíma symboly druhej osoby a rovnako v nej symboly komunikácie vyvoláva.“* Ak o podobách didaktickej interakcie pouvažujeme hlbšie, tak môžeme vidieť, že jednostranné prijatie (alebo neprijatie) informácie, myšlienky, jedného subjektu, ako aj obojstranné odovzdanie a prijatie (neprijatie) komunikačného symbolu skutočne závisí od predchádzajúcej skúsenosti oboch subjektov a od zmien v uvažovaní o vlastnej pozícii v tomto procese. Didaktickú interakciu vo výučbe je potrebné chápať ako naozaj špecifický proces, ktorý ovplyvňujú nie len vyššie spomenuté faktory, ale ako nám výskum potvrdil je to najmä prístup učiteľa k výučbe, ktorý vopred determinuje jej charakter.

3 DIZAJN VÝSKUMU V KONTEXTOCH JEHO CIEĽA, VÝSKUMNÉHO PROBLÉMU A OTÁZOK VÝSKUMU

Predmetom nášho skúmania bola didaktická interakcia vyskytujúca sa vo výučbe, konkrétne na seminároch Pedagogickej fakulty Univerzity Komenského v Bratislave. Skúmali sme prítomnosť didaktickej interakcie a v nej prebiehajúce procesy na seminároch určených pre poslucháčov katedry Pedagogiky a sociálnej pedagogiky ako aj katedry Anglického jazyka a literatúry.Výskumná činnosť prebiehala na seminároch zameraných na didaktiku pedagogiky a anglického jazyka. V rámci cieľa nášho výskumu sme pátrali najmä po didakticko-interakčných aktoch, ktoré možno zaradiť do kategórie interakčných príklonov alebo odklonov učiteľa a žiakov (študentov) vo výučbe. Naším primárnym cieľom bolo získať dáta vypovedajúce o existencii takých didakticko-interakčných aktov vo výučbe, ktoré by legitimizovali náš zámer zaradiť ich do už spomínaných kategórii. Sekundárnym cieľom, no kľúčovým pre dosiahnutie primárneho cieľa, bolo získať v rámci kvalitatívne orientovaného pozorovania vo výučbe a následne hĺbkového interview s učiteľmi dáta, výpovede, ktoré by reflektovali o pedagogickom uvažovaní učiteľa o procese výučby, o cieľoch jeho didaktického pôsobenia, o jeho uvažovaní nad kognitívnymi ale aj afektívnymi zmenami odohrávajúcimi sa v subjektoch výučby. Pátrali sme po výpovediach, ktoré by nám umožnili analyzovať na prvý pohľad možno nie zjavné procesy vyskytujúce sa vo výučbe. Zaujímalo nás či prostredníctvom didaktickej interakcie nastáva zmena v nazeraní na proces výučby u oboch subjektoch a ak áno, do akej miery svoje zmeny v uvažovaní verbalizujú, analyzujú, kriticky prehodnocujú a v praxi aplikujú. V súvislosti s naším cieľom zaradiť interakčné akty do kategórie príklonu alebo odklonu nás z pohľadu učiteľa zaujímalo, či učiteľ prijíma myšlienku, názor žiaka, študenta a ak áno, či učiteľ tieto názory, myšlienky ďalej analyzuje a prehodnocuje vo vzniknutých situáciách, a teda na ich základe mení svoju perspektívu nazerania na výučbu. Rovnako z pohľadu učiteľa nás zaujímalo, či študent využíva, prijíma učiteľom interakčne konštruovanú výučbu, kedy a akým spôsobom prispieva žiak (študent) k iniciovaniu interakčných aktov medzi ním a učiteľom.

3.1 Metódy výberu reprezentatívneho súboru, zberu a analýzy dát a aplikované teoretické východiská

Predmetný výskum sa uskutočnil na seminároch pre študentov učiteľstva na Pedagogickej fakulte, Univerzity Komenského v Bratislave. Participujúce subjekty boli učitelia a študenti

pedagogiky a sociálnej pedagogiky a študenti anglického jazyka a literatúry. V rámci zacielenia nášho výskumu sme svoju bádateľskú činnosť orientovali na semináre didaktiky pedagogiky a anglického jazyka. Reprezentatívny súbor pozostával z dvoch učiteľov, a to jedného učiteľa pôsobiaceho na katedre pedagogiky a sociálnej pedagogiky a druhého z katedry anglického jazyka a literatúry. Obaja sa špecializujú najmä na didaktiku príslušných predmetov. Výskumný súbor sme si vybrali zámerne, pretože subjekty spĺňali naše základné kritérium. Naším základným kritériom bolo, aby bol participujúci subjekt odborníkom v oblasti didaktiky učiteľstva akademických predmetov. Toto kritérium sme si stanovili z toho dôvodu, aby výpovede subjektov boli naozaj na požadovanej odbornej úrovni a v rozsahu umožňujúcom dosiahnuť výskumný cieľ. Keďže naším cieľom bolo získať výpovede, ktorých predmetom bola didaktická interakcia vo výučbe, zámerne sme pátrali po subjektoch, ktoré majú s danou problematikou dlhoročné teoretické a praktické skúsenosti. Čitateľ sa zrejme môže domnievať, že rozsah výskumného súboru bol nepostačujúci, ale so subjektmi sme intenzívne spolupracovali niekoľko mesiacov a nazhromaždené dáta boli skutočne rozsiahle a podrobné. Skúmané fenomény si vyžadovali dizajnovanie takého výskumu, ktorý čo najreálnejšie mapoval intersubjektívnu realitu/y a s čo najväčšou presnosťou poskytol relevantné a validné dáta. Jednou z teórii, z ktorých sme vychádzali pri práci s výskumnými dátami konkrétne pri ich zbere a analýze je ukotvená alebo aj uzemnená teória (grounded theory). Konkrétne o využívaní mechanizmov ukotvenej teórie v rámci analýzy dát uvažuje (Miovský 2006, s. 228), ktorý o nej hovorí ako o konceptualizácií a tento proces konceptualizácie chápe ako: *„proces, kedy prechádzame z deskriptívnej roviny, do roviny odhaľovania toho, čo pri jednoduchej deskripcii javu ostáva skryté. Konceptualizácia je postup, pri ktorom sa snažíme k popisovanému javu vytvoriť určitý základný výklad umožňujúci jeho kvalitnejšie, hlbšie porozumenie.“* Toto vymedzenie konceptualizácie výstižne charakterizuje aj náš zámer odhaliť skryté procesy a javy prítomné v didaktickej interakcii, ktorá nastáva medzi subjektmi vo výučbe a rovnako vytvoriť výklad problematiky umožňujúci jej hlbšie porozumenie. V súvislosti so zakotvenou teóriou uvádzame nami aplikovanú metódu konštantnej komparácie (MKK), ktorú (Kostrub 2014, s. 243- 251) charakterizuje takto: „*Pri uplatňovaní MKK nie je zámerom overovať univerzálnosť, ani potvrdiť príčiny, či iné vstupné údaje. Tento postup zabezpečuje saturáciu potrebnej informácie. Cieľom uplatňovania MKK nie je verifikovanie, ale generovanie teórie. Sleduje sa veľkosť a sýtosť informácie v texte, až kým nie je dosiahnutá hladina saturácie.“* Ako príklad, uvedieme jednu kategóriu, ktorú sme podrobili mechanizmom Metódy konštantnej komparácie a tento proces demonštrujeme v nasledujúcej tabuľke.

Tab. 1 Metóda konštantnej komparácie

Identifikovaná kategória	Teoretické kritéria saturujúce kategóriu
Učiteľ vo výučbe implementuje princípy konštruktivizmu a sociálneho konštruktivizmu.	• Učiteľ vo výučbe pátra po prekonceptoch učiacich sa subjektov. • Učiace sa subjekty vo výučbe svoje vedomosti o problematike sami konštruujú. • Učiace sa subjekty problematiku kriticky analyzujú a teoreticky zovšeobecňujú vo vzájomnej komunikácii, interakcii.

V našom výskume sme využili metódy kvalitatívneho skúmania a to konkrétne metódu nepriameho pozorovania vo výučbe a hĺbkového interview so subjektmi výskumu (učiteľmi). Pri analýze dát sme postupovali tak isto pomocou kvalitatívnych metód. Ako príklad jednej

z nich poslužila už uvedená MKK. Považujeme za potrebné uviesť, že pri zbere a analýze dát sme postupovali nasledovne:

1. Pozorovanie vo výučbe prostredníctvom videozáznamu.
2. Analýza videozáznamu a transkribovanie dát.
3. Otvorené kódovanie transkribovaných dát a vytvorenie kategórií.
4. Interview s učiteľmi v podobe hĺbkového rozhovoru zaznamenanom na diktafón.
5. Transkribovanie dát získaných prostredníctvom interview.
6. Otvorené kódovanie transkribovaných dát a vytvorenie kategórií.
7. Axiálne kódovanie dát.
8. Selektívne kódovanie dát a ich teoretické zovšeobecnenie.

Semináre, na ktorých sme pozorovanie uskutočnili prebiehali v časovom rozsahu 90min a v jednom prípade niečo vyše 120 minút. Pomocou audiovizuálnej techniky sme vykonali pozorovanie na troch seminároch pod vedením particcipujúcich subjektov. Považujeme za dôležité uviesť, že aj keď išlo len o tri semináre pod vedením dvoch učiteľov po ukončení prvej fázy sme získali videozáznamy v rozsahu vyše piatich hodín, ktoré sme v ďalšej fáze podrobili dôkladnej analýze. V druhej fáze výskumu sme pristúpili k dôkladnej analýze dát v podobe ich transkripcie. Transkribované dáta sme podrobili najskôr „otvorenému kódovaniu," čo predstavuje proces, pri ktorom sa javom prisudzuje isté pomenovanie, kategória. Vzniknuté kategórie boli predmetom hĺbkového interview s učiteľmi. Interview, ktoré sme realizovali v rámci výskumu, môžeme charakterizovať ako priame, neštruktúrované, pretože jeho predmetom, ústrednou témou boli nami identifikované kategórie, ktoré vznikli v rámci analýzy získaných dát a otázky, ktoré sme kládli v interview, vznikali na základe jeho priebehu. Hlavným cieľom interview bolo získať výpovede učiteľov o tom, ako priebeh výučby a najmä didakticko-interakčné momenty chápali z vlastnej perspektívy. Rovnako sme chceli získať dáta vypovedajúce o tom, ako sa z ich pohľadu interpretujú nami identifikované kategórie za účelom ich verifikácie. Interview sme po ich súhlase zaznamenávali na diktafón, čo nám znovu umožnilo zaznamenať výpovede subjektov v najautentickejšej podobe. Konkrétne fázy a priebeh interview budeme špecifikovať nasledovne.

Fázy interview

1. Prípravné činnosti, prípravná fáza

Prípravná fáza spočívala v našom zaznamenaní si konkrétnych sekvencii vo videonahrávke, ktoré boli neskôr predmetom spoločnej analýzy s participujúcim subjektom.

2. Premietnutie a analýza konkrétnych sekvencií vo videonahrávke

V tejto fáze sme participujúcim subjektom premietli konkrétne sekvencie a požiadali sme ich, aby si všímali najmä interakčné momenty medzi učiteľom a žiakmi. Je dôležité poznamenať, že sme nepremietali viac ako dve sekvencie naraz, aby sme zabezpečili, že výpovede budú komplexnejšie.

3. Vyhotovenie audio záznamu výpovede a kladenie doplňujúcich otázok

V tejto fáze sme subjekty požiadali o to, aby interpretovali svoj pohľad na vzhliadnuté situácie. Výpovede subjektov sme zaznamenávali na diktafón a podľa ich obsahu sme kládli doplňujúce otázky s cieľom hlbšie porozumieť uvažovaniu subjektov o vzhliadnutých situáciách.

4. Spoločná analýza nami identifikovaných kategórií

K spoločnej analýze nami identifikovaných kategórií s participujúcimi subjektmi sme pristúpili až po ich prvotnej a spontánnej výpovedi o vzhliadnutej situácii v predošlej fáze. Naším cieľom bolo, aby sme získali najskôr autentické, nami neovplyvnené výpovede.

5. Vyhotovenie audiozáznamu výpovede subjektov o vzniknutých kategóriách a kladenie doplňujúcich otázok

V tejto fáze sme výpovede subjektov opäť zaznamenávali na diktafón. Cieľom bolo, aby sme si so subjektmi overili, verifikovali, či by rovnakú, podobnú alebo aj inú kategóriu sami identifikovali. Kládli sme doplňujúce otázky za účelom získania čo najkomplexnejšej výpovede o tom, ako predmetnú kategóriu zastupujúcu konkrétne javy vo výučbe chápu z vlastnej perspektívy. Takto získané dáta sme následne opäť pretranskribovali do textovej podoby a metódou otvoreného kódovania sme vytvorili nové kategórie. V rámci ďalšej analýzy sme aplikovali axiálne kódovanie s cieľom pripísané kategórie takpovediac „rozlámať" a znovu poskladať novým spôsobom. V poslednej fáze práce s kategóriami sme aplikovali selektívne kódovanie s cieľom znovu overiť pripísané vzťahy ďalej konceptualizovať. Ako príklad uvádzame vybranú pasáž z transkribovaných textov, na základe ktorej sme uvedené kategóriu identifikovali. Vo vybranom príklade chceme demonštrovať nie len relevantnosť identifikovanej kategórie, ale aj naše uvažovanie o vzťahoch medzi jednotlivými kategóriami a subkategóriami, ešte pred ich verifikáciou so subjektami výskumua a po verifikácii prostredníctvom interview.

Príklad vzniknutej kategórie a jej následnej verifikácie v interview:

„Učiteľ skúma kognitívne procesy a pátra po prekonceptoch učiacich sa subjektov."

A) *„Skúste mi povedať, ako by ste definovali kurikulum . Hocikto, hláste sa, hovorte."*

B) *„Moja prvá otázka je. Povedzte mi. Ako učitelia jazykov hodnotia svojich žiakov?"*

C) *„Teraz tu som počula, že ako vy o tom uvažujete? Povedzte."*

Na základe uvedených pasáží sme identifikovali snahu učiteľa pátrať po prekonceptoch učiacich sa subjektov ohľadne konkrétnej problematiky. Domnievali sme sa, že učiteľ vychádzal z istého predpokladu, že subjekt/subjekty s danou problematikou majú osobnú skúsenosť. Zdôvodnenie toho, čo bolo cieľom tohto ich pátrania, nám učitelia poskytli v interview nasledovne:

U1)„Snažila som sa podnietiť v žiakoch proces rozmýšľania o danej tematike. Snažila som sa z nich vydolovať ako sa hovorí ľudovo všetko, čo o tejto problematike vedia. Pomáhala som im pomocnými otázkami, respektíve používala som príklady, ktoré mi aj oni ponúkali. Na základe ich reakcii som posunula moje ďalšie očakávania alebo môj ďalší postup v tom, čo som chcela získať, na základe ich skúseností alebo názorov.."

U2)„Aj myslím, že v tom vstupe tam bolo aj to moje povzbudzovanie, že vydiskutujte si, verbalizujte to, čo si myslíte, že je dobré, až do takýchto momentov, ktorých sa ja môžem chytiť, že čo z toho je prekoncept a čo z toho platí pre vás. Snažím sa k tomu vyjadriť, až na konci ohľadne prekonceptov." V zmysle výpovedí o tom ako uvažovali participujúce subjekty o týchto javoch, a na ich základe, sme považovali za vhodné doplniť uvedenú kategóriu s cieľom bližšieho špecifikovania, prečo k týmto javom v nami skúmanej výučbe dochádzalo, teda čo je cieľom učiteľovho pátrania po prekonceptoch učiacich sa vo výučbe. Subjekty nám potvrdili, že pátrali po prekonceptoch učiacich sa, aby mohli následne modifikovať svoj ďalší postup, krok v procese didaktickej interakcie. Potvrdili, že výpovede študentov analyzovali, prehodnocovali a iniciovali ďalšie doplnenie, teda sa interakčne prikláňali.

4 VÝSLEDKY VÝSKUMU A ICH INTERPRETÁCIA A NAMIESTO ZÁVERU

Na základe niekoľkonásobnej analýzy dát nazhromaždených prostredníctvom metód kvalitatívneho skúmania sme javom prítomným v procese didaktickej interakcie prisúdili kategórie, postupom, ktorý sme demonštrovali v predchádzajúcej podkapitole. Relevantné kategórie pre náš výskum bolo ešte potrebné analyzovať v kontexte s cieľom nášho skúmania. Cieľom výskumu bolo identifikovať, ktoré z prejavov prítomným v procese didaktickej interakcie bolo možné charakterizovať ako interakčný príklon alebo odklon učiaceho a učiacich sa subjektov vo výučbe. Zaradenie do príslušnej kategórie prebiehalo v rámci verifikácie výpovedí subjektov výskumu prostredníctvom interview. Pre limitovaný priestor, uvedieme stručnú podobu distribúcie identifikovaných subkategórií do príslušných kategórií príklonu alebo odklonu v nasledujúcich tabuľkách.

Tab. 2 Identifikované, relevantné subkategórie v rámci analýzy výskumných dát a ich distribúcia do kategórie interakčného príklonu alebo odklonu.

Interakčný príklon: „Učiteľ odhaľuje svoj zámer, čo danou aktivitou chce dosiahnuť a vyslovuje predpoklady prijateľného spôsobu dosiahnutia jej cieľov žiakmi.“
Interakčný príklon: „Učiteľ dáva pozitívnu spätnú väzbu žiakom, cieľom motivovať ich k ďalšej činnosti.“
Interakčný príklon: „Učiteľ si overuje či porozumel odpovedi/výpovedi žiaka, aby mohol ďalej s touto odpoveďou/výpoveďou pracovať vo výučbe.“
Interakčný príklon: „Učiteľ skúma kognitívne procesy a pátra po prekonceptoch učiacich sa subjektov, aby mohol následne modifikovať svoj ďalší postup v procese didaktickej interakcie.“
Interakčný príklon: „Učiteľove očakávanie sa nezhoduje s odpoveďou žiaka, rozvíja ju podľa svojho očakávania alebo očakáva jej doplnenie žiakom.“
Interakčný príklon: „Učiteľ žiakovu odpoveď prijíma, ale ďalej rozvíja, kompletizuje podľa svojho pôvodného očakávania.“
Interakčný príklon: „Učiteľ podnecuje u žiakov uvažovanie o vlastných procesoch uvažovania.“
Interakčný príklon: „Učiteľ podnecuje žiakov k vyvodeniu vlastnej teórie“
Interakčný príklon: „Učiteľ vo výučbe implementuje princípy konštruktivizmu a sociálneho konštruktivizmu.“

Tab. 3 Identifikované, relevantné subkategórie v rámci analýzy výskumných dát a ich distribúcia do kategórie interakčného príklonu alebo odklonu.

Interakčný príklon: „Študent si overuje u učiteľa, či postupuje, uvažuje správne.“
Interakčný príklon: „Študent odpovedá/vypovedá komplexne, má dostatok času na premyslenie odpovede/výpovede, má skúsenosť úlohami vyžadujúce si komplexnú a prehľadnú formuláciu jeho myšlienok, názorov. “
Interakčný odklon: „Študent odpovedá/vypovedá stručne, je si neistý, keď má sám kriticky hodnotiť a analyzovať, nemá dostatok skúseností s podobnými úlohami vo výučbe.“
Interakčný príklon:

„Študenti vo vzájomnej argumentácii problematiku kriticky hodnotia a analyzujú, intenzita kritického hodnotenia, argumentovania žiakov sa zvyšuje pod vplyvom skupiny.“
Interakčný príklon: „Študent je motivovaný zapojiť sa do diskusie, pretože má s problematikou osobnú skúsenosť.“
Interakčný odklon: „Študent si nie je istý, váha, hľadá oporu u učiteľa, odpovedá čiastočne.“
Interakčný odklon: Študenti neprejavujú svoje názory vo výučbe, z dôvodu prevládajúceho transmisívneho fluida v ich nazeraní na výučbu.

Z výsledkov nášho skúmania vyplynulo, že najrozhodujúcejším faktorom ovplyvňujúci podobu didaktickej interakcie a fenoménov, ku ktorým bolo možné prisúdiť aspekt interakčného príklonu alebo odklonu mala v nami skúmanej výučbe koncepcia výučby realizovaná učiacimi subjektmi a predošlé skúsenosti s koncepciami výučby u učiacich sa. Výpovede participantov vo výskume deklarovali, že to, ako sa formuje didaktické pôsobenie (didaktická interakcia) učiteľa vo výučbe závisí hlavne od jeho skúseností a preferencií k istej koncepcii v praxi. To naznačuje, že učiace sa subjekty (kandidáti na učiteľskú profesiu) by mali v rámci svojho štúdia získať nie len teoretické vedomosti o rôznych metódach a fundamentálnych prístupoch k výučbe, ale je potrebné zabezpečiť dostatok praktických skúseností a aktivít, v ktorých môžu o týchto javoch uvažovať, diskutovať, polemizovať a byť jej aktérmi. Participujúce subjekty vo výskume tiež uviedli, že fenomén transmisívneho vyučovania má vo vyučovacom procese stále silné postavenie a jeho vplyv je citeľný aj v uvažovaní o výučbe u poslucháčov učiteľských smerov a zároveň v premietnutí interakčných aktov vo výučbe. Usudzujeme, že najdôležitejšou úlohou pri príprave študentov do učiteľskej praxe bude čoraz väčšie presadzovanie induktívnych prístupov vo výučbe, aby sa predišlo akýmsi obavám uvažovať a konať vo výučbe aj v iných intenciách, ako len tej, pri ktorej je učiteľ hlavným koordinátorom činností vo výučbe a hlavným konštruktérom vyučovacích cieľov. Autor štúdie vidí v nemalej miere dôležitosť v pokračovaní v kvalitatívne orientovaných výskumoch umožňujúce sebareflexívne, spoluparticipatívne kooperovanie a kolaborovanie subjektov výučby nie len na úrovni vysokoškolskej výučby, ale aj nižších stupňoch vzdelávania s cieľom kvalitatívne skúmať interprersonálne reprezentácie subjektov výučby s možnosťou problematiku nie len teoreticky zovšeobecniť v deskriptívnej rovine, ale aj intervenovať, konštruovať a rekonštruovať pedagogickú realitu.

Použitá literatúra

1. GAVORA, P. 2003. *Učiteľ a žiak v komunikácii.* 1. vyd. Bratislava: Univerzita Komenského, 2003. 200 s. ISBN 80-223-1716-0.
2. KOSTRUB, D. 2008. *Dieťa/žiak/študent – učivo - učiteľ, didaktický alebo bermudský trojuholník?* Prešov : Rokus, 2008. 169, s. ISBN 978-80-89055-87-6.
3. KOSTRUB, D. 2014. Kvalitatívna metodológia ako nástroj rozvíjania pedagogickej vedy. [elektronický dokument] In: *Předškolní vzdělávání v teorii a praxi : Jaká je současná situace v České republice a zahraniční východiska pro vzdělávání u nás. (CD-ROM).* – Brno : Masarikova Univerzita, 2014 S. 243-252
4. MIOVSKÝ, M. 2006. *Kvalitativní přístup a metody v psychologickém výzkumu.* Praha : Grada Publishing, a.s. , 2006. ISBN 80-247-1362-4.
5. PRŮCHA, J. 2009. *Moderní pedagogika.* 4. vyd. Praha : Portál, 2009. 488 s. ISBN 978-80-7367-503-5.

6. TÓTHOVÁ, R.- KOSTRUB, D.- FERKOVÁ, Š. 2017. *Žiak, učiteľ a výučba (Všeobecná didaktika pre študentov učiteľstva).* Prešov: ROKUS, 2017. ISBN 978-80-89510-61-0
7. VALIŠOVÁ, A. – KAŠÍKOVÁ, H. et al. 2011. *Pedagogika pro učitele.* 2. vyd. Praha : Grada Publishing, a.s., 2011. 456 s. ISBN 978-80-247-3357-9.

Kontaktné údaje

Mgr. Peter Ostradický
Univerzita Komenského v Bratislave, Pedagogická fakulta
Račianska 59, 81334
Tel: 0948 905 504
email: ostradicky1@uniba.sk

SOCIAL TOURISM IN RELATION TO THE SENIORS

Katarína Sisiková, Anna Žilová

Abstract

The aim of this article is to point to actual situation in social tourism in relationship to seniors in selected European countries. Article also mentions about actual situation of seniors tourism in Slovak republic. In the beginning we focus on the formation and fundaments of tourism. We justify meaning and the aim of seniors' tourism. We carry out overview of actual projects for support of senior tourism in Europe and Slovakia. In conclusion we want to point to not enough support of seniors' tourism in Slovak republic and give some advices how to solve it.

***Key words**: senior, tourism, social tourism, seniors' tourism*

1 FUNDAMENT OF TOURISM

Modern tourism originated during the Industrial Revolution, due to technical, economic and social development. Tourism expects the possibility of free movement of people, the existence of a primary offer which is the base of tourism product development, Also expects a degree of technical, economic and social development that effects in satisfying, besides the biological needs, also the less necessary needs.

Tourism defines every scientific discipline and defines object of its research. There is over 200 of definitions of tourism. According to Kaspar "tourism is summary of relations and events which follow from travelling or people´s movement except for the place is not for permanent residence and job"(1995, 10). Marián Gučík in his work Bases of tourism (2000, 7) wrote that this definition is the official definition from 80´ for International Association of Scientific Experts in Tourism (AIEST)

World tourism organization (UNWTO) organized in 1991 in Ottawa international conference for tourism primary aim was to unite the definition of tourism for reporting statistical data. „ In the point of view of statistic tourism is activity of person who travels for temporary time away from its standard environment. The main purpose of the travel is other than business". It follows that the requirement for tourism is the temporary residence away from permanent residence. The aim of tourism is to satisfy in free time specific needs and gain experience. (Gúčik, 2001, 7).

2 SOCIAL TOURISM

Social tourism is the form of tourism for socially weaker people. Social tourism originated in 20th century after WW I. In this period people started to talk about the right for rest, free time and paid vacation. This rights were established in Universal Declaration of Human Rights which was adopted General Assembly of the United Nations in 1948. The right for rest, paid vacation and free time was step by step adopted in the constitutions of each states. After adoption the right for rest began to rise support treasury, pension treasury and self-help organizations. Also in most countries started to develop business vacation. It started offer of special services and created facilities for everyone. It also developed financial help in the form of loans and grants which decreases costs of vacation[1] (Gúčik a kol., 2006, 167).

[1] Nowadays there are lots of forms to support of social tourism for example: traveling checks (Hungary, Switzerland, France), special savings, installment sale tourism services, tax-relief from income (Hungary), traveling discount for some people (children, students, seniors).

According to Montreal declaration from 1997 article 3, the aim of social tourism is to accessing tourism to all including families, teens and old people. Its aim is necessarily to include

The aim of making tourist leisure accessible to all - including families, youth and elders - necessarily means being involved in the struggle against inequality and the exclusion of the culturally different, those of limited means or abilities, or those who live in developing countries. Declaration emphasizes need for better support and distribution of resources in the aim that all citizens (mainly families, elder and handicapped) can apply rights in better using infrastructure and accommodation. It urges member states, regional and city authorities that they use EU funds for this request to make available tourism to these people.

In last decade in more EU countries started to realize various programs developing social and barrier free access tourism in projects, studies and courses. Progressively countries make up barrier free access tourism facilities. There are internarial conferences the theme is "Tourism for ALL- Accessible tourism". Most important initiatives are for example ENAT – its member countries are among others Czech republic and Poland, OSSATE, "Europe for All",CETA, DIADA and for barrier free access tourism in Czech republic it is ANTHENA (www.nrozp-mosty.sk).

2.1 Social tourism in relationship to elder

Demographic developments influences wide aspects of our life. Europe is ageing. People aged 50+ represent already 37% of the population, i.e. 190 million citizens. There is a prognosis that the number of people aged over 60 will increase about two million people per annum in the next decades, while the working age population, as a result of lower fertility rates among post baby boom generations, will start to decrease. Thereby the number of old people, 80 years and older, who are mostly in need of care, will increase. At the same time fewer young people. (www.agefriendlyeurope.org).

This demographic change directly influences the demand for tourism and its offers. One reason of increasing the average age of people is that young people don´t have own families in young age, decreasing of birth-rate, decreasing of mortality and better health care. (www. conference.osu.cz).

What does the concept of senior mean? "Senior is a person who has a specific position in society at the end of life." (Sak, Kolesárová, 2012, 25).

Seniors can be described as a group of disadvantaged people, reliant on helping others with respect to their age, the inability to provide their own living needs, their territorial, economic, psychological and social attachment to adults and self-reliant people (Žilová In: Kasanová, 2008). Although the seniors have many features in common, they are very different in their condition, living conditions, and also in their needs and demands.

The World Health Organization divides the life of seniors as:

Tabel 1: Division of age of seniors

60-74 years	older age
75-89 years	old age
over 90 years	longevity

Source: Hrozenská, M. a kol. 2008

Gúčik in his password (2006, 159) wrote that typically for seniors is more free time so they can travel more and longer. They have their own requests. They are less mobile and need other services. The prefer learning trips, bath and spa, boat trips and visits their related.

2.2 Support of senior tourism in Europe

Subsidy of senior tourism means to support active and healthy aging. Traveling satisfies and helps elder people to avoid solitude and lack of meaning of life. It helps to struggle against social separation which is one of the biggest problem they face to. Traveling can enrich and gives a possibility for changing the daily routine. It initiates discovery of new places intercultural exploration and social interaction (www.age-platfrom.eu).

In Europe started several initiatives for supporting seniors' tourism. One of this initiative is Age platform Europe. It merges some non-profit organizations and supports citizens 50+. It encourages tourism friendly to age which means tourism satisfying needs and wishes of European seniors and it allows freedom of movement barrier free. From middle Europe it represents non-profit organizations from Poland, Czech Republic, Hungary and Austria. In Slovakia it is Forum for helping seniors´(Fórum pre pomoc starším) in Prievidza.

In 2015 Age platform Europe made the research about elder people priorities in tourism from members' countries in Europe. This research was in Italy, Cyprus, Bulgaria and Portugal. The result of this research confirms heterogeneity groups of citizens who´s needs and expectations are different to age, health, social limitation. Due to this research it shows to some social formula and preferences especially people in age from 55 to 75 for example: elder people travel rather with partner, relatives, family members and familiar people. They prefer traveling with budget until 100€ per day, for approximately 4-7 nights max 13 nights. With the increasing age there is more increasing demand to plan and control traveling by self. They decide less for all-inclusive packets and prefer individual vacation.

Elder tourists prefer specific forms of tourism like learning trip, pilgrim or religious tourism and wellness and spa. The results were different in dependence from which country they are. Although they are retired they mostly traveling in the spring and the main season in summer. We can say that priority of accommodation facilities is to fulfil capacity during whole year and they offer out of season discounts. This can be also interesting for seniors.

The research provided for Age platform Europe overview what request have seniors in selected countries to traveling happy and be a part of tourism. Based on this information organization started to cooperate with member´s associations to remove barriers.

Another hopeful project is Eurosen which aim is to support economical increase in Europe for small and medium-sized enterprises. Its second aim is social aim too which is active life for seniors by engaging seniors to tourism activities such as travellers or hosts. The project is based on public-private partnership which includes regional and national institutions and private tourism sector focused on small and medium-sized enterprises, senior´s associations, interested groups and non-profit organizations (for example cultural associations). They called it Cluster of local culture (CLC).

The aim of Eurosen is to create national and European networks and it will coordinate CLC clubs. In this time is in the project Austria, Romania, Slovenia and Italy. Project is aimed for creating senior oriented tourist packets. It plans to increase effectiveness business in senior´s tourism and create business plan for implementation seniors to Europe. (www.age-platfrom.eu)

Spain member of Age platform Europe CEOMA engages with other European members in projects such as "Senior train" and "Silver cyclist". The aim of this projects is to support and make easier safe and healthy senior tourism.

The project Senior Rail Travel supports easier traveling for seniors trough Europe by train. The project includes systematic study of needs and obstacles of seniors. The aim is to develop modular tourism which allows future customers to create ideal European train vacation.

Based on this project will be created traveling packet which will include travel network from train mobility trough accommodation to cultural packets.

Another project is running in Europe is MeetNature which joins Czech non-profit organization Život90. Its asset is to combined interaction with nature trough outdoor activities. Another theme of this project is to refute that seniors are considered they don´t have interest in outdoor activities. Seniors are excluded from outdoor activities and modern technologies.
Result from this information is that support of seniors' tourism is various. The organization Age platform Europe doesn´t inform on its homepage if it financially support seniors. We sent an e-mail to organization to find it out but they don´t answer till now.
In 2009 Spain started the program Europe senior tourism. This program supported by Spain government is dedicated to seniors over 55 who have interest in active vacation. Europe senior tourism support Spain as the country with various offer for activities. In the time out of main season between October and May offer Spain tourism destination the best hotels, restaurants and occasions for savour the country.
In this project are interested in region and city authorities, other European countries and others tourism business. Spain government project senior tourism has the same aim as the starting project "Initiative tourism for senior" started by European commission in 2012 for increasing seniors traveling through Europe. Initiative is continuing of project Calypso which conclusions show importance of supporting seniors traveling out of main season.
Spain government provides discount till 150€ for visitors from Hungary, Poland, Czech republic and Slovak republic, discount 100€ for visitors from other European countries except for Spain, Germany, United Kingdom, Estonia, Lithuania, Latvia, Finland and Sweden.
Since 2009 have participated 150 000 European seniors from 16 countries. (www.europensiortourism.eu). In Slovak joins this project travel agency Osttour.

2.3 Support of senior tourism in Slovakia

In Slovakia is theme of the senior tourism new sphere for experts. Ministry of transport and construction of the Slovak republic elaborated Strategy of tourism development till year 2020. This strategy taken into account National quality services of tourism needs for handicap people in the tourism facilities. The Strategy of the tourism till year 2020 includes wide participation of people in tourism (www.telecom.gov.sk). Barrier-free access and universal design includes easy access but also orientation and information system. The universal environment is asset for all users and increases comfort and the value of property. The environment designed like this make easier using for seniors, handicap people, parents with pushchair, pregnant women and people with heavy baggage etc (www.nrozp-mosty.sk).
Ministry of labour, social affairs and family of the Slovak republic gives state grant for reconditioning support according to the law 544/2010. This grant prevents from social separation and recovers psychical and physical condition of person who is on pension, early retirement pension and retirement pension and doesn´t work. Either civic social association can ask for this grant. For pensioners this grant is 50€. However this grant is not for everyone. Ministry of labour, social affairs and family of the Slovak republic has for this 600 000€. So this grant is for cca 12000 pensioners. In Slovak republic there are about 1.039 million of pensioners. Recondition vacation organize Union of pensioners (Jednota dôchodcov), Confederation of Trade Unions (Konfederácia odborových zväzov) and Union Confederation of Food (Odborový zväz potravinárov) (www.tvnoviny.sk)
Seniors traveling support is by Slovak Railroad, too. The claim for cost-free railroad have pensioners according to law 461/2003 social insurance or others pensions paid by EU member state and retirement pensioners according to law 328/2002 about social insurance for policemen and soldiers (www.slovakrail.sk). Cost free railroad traveling supports only mobility. It is not together with accommodation or other services such as projects senior train

and senior rail travel. We contacted Slovak rail if they if they are interested to participate in projects such as senior train or senior rail travel. Slovak rail didn´t answer till now.
We have contacted Slovak association for travel agencies about tourism support. The president Stanislav Macko informed us that travel agency Osttour Ltd. take care of seniors tourism and is interested in Spain project Europe senior tourism. This project is supported by government agency SEGITOUR and governments of regions - Catalonia, Andalusia and Mallorca and it offers lower prices than usually. Based on common experiences and cooperation with other subjects (aircraft companies, hotels, bus companies…) offers packet of services for good price (www.seniortravel.sk) In our opinion disadvantage of this project is that this is project of Spain government and Slovak seniors are limited Spain destination offer. Air transport can increase considerably price of vacation. In our opinion average Slovak pensioner is not able to save 600€ or more for vacation. Travel agency don´t offer Slovak vacation which could be for Slovak pensioners cheaper.
Active life for seniors is supported in Slovakia by civic association AkSen – Active senior. It is separate, non-profit, non-political, voluntary association of individual and legal person. According to bylaw of this association is its mission enforce seniors' requirements. It increases importance of activities for seniors and their meaning in society. Either its mission is to make better communication between generations and integration seniors in society. The association performs charity for social and healthy handicap people. Its informs seniors about finance, housing and labour market.
The main activity of the association is to make conditions for cultural, educational and entertaining activities. It supports seniors to be active by tourism. The association Aksen participates in various seminars, conferences and cooperates with non-profit and non-government organizations. It also introduces draft law and steps for better active seniors' life.
The Aksen central is in Piešťany and four offices in Banská Bystrica, Bratislava, Nové Zámky and Prešov. Offices work separately (www.aksen.sk). They have 130 members in Banská Bystrica. The coordinator of this project said that attractiveness of activities depends on active members. Seniors have lot of problems such as healthy and economical and they can´t make some bigger projects in tourism. They organize one day trips in Slovakia by train. They make use of free railroad. Annual fee is only 5 € so they can´t afford any non-repayable contribution.[2] We asked more about support of seniors tourism coordinator of Piešťany centre Aksen. Ms. Stanková. She recommended email communication but we didn´t get any answer till now. We were interested in how they supported its members in tourism. What problems they have. How can state support seniors tourism. We hope we will receive this answer so we can better see where problems are.
We mentioned early that one of member organization Age platform Europe is Forum for seniors help (Fórum pre pomoc starším o.z.) in Prievidza. This forum is interested in problems of aging and old age. It contributes with its activities in improving life for citizens in approaching age and pensioners. It organizes lot of national activities, conferences and researches which are used for aging solutions (www. Forumseniorov.sk). The main activity is to protect seniors against violence and tyranny. First of all they provide social and legal help. They have free phone line for help and protection. The president of forum Ms. Ľubica Gálisová in the interview said that senior tourism is not theirs interest. They are not planning to cooperate with Age platform Europe.

3 CONCLUSION

The social tourism allows social handicap people to participate in tourism. In this category are seniors too. Our primary aim was to research situation of seniors tourism support in Europe

[2] We have the same opinion which we said by project Europe senior travel.

and Slovakia. We looked at non-profit organization Age platform Europe which merges non-profit organizations in Europe and supports variously support seniors´ tourism. We especially focused on support for seniors' tourism and gave some examples how organization participated in. Two years before they started questionnaire research to find out which criteria are important for seniors to practise tourism in various countries. This questionnaire research was in more European countries and they include seniors from 55 to 75 years. In the research answered respondents in various age, social and economical statuses. This caused that there were big differences in tourism claims. We can´t globalize this research. Younger seniors are not financially depend and it is different from non-working seniors. Despite of this differences started organization Age platform Europe some projects which work. We analyse homepage Age platform Europe and we acquire overview about these projects. But we were interested in financial support of seniors' tourism too. We sent email in organization but they didn´t answer yet. Organization projects Age platform Europe and Europe Senior Tourism are for seniors over 55 years. In this category are working and non-working seniors. This projects are not oriented for seniors who don´t have enough money so they can be included to society.
In Slovakia is the situation in tourism different. Slovak republic don´t have created strategy of seniors tourism support. Any state organization is involve in this sphere. In context of increasing knowledge about social tourism we implement trends in Slovakia.
Ministry of labour, social affairs and family of the Slovak republic yearly supports non-working seniors by grants 50€ for reconditioning and wellness vacation. But this grant is only for cca 12000 pensioners. We can say that state is supporting seniors' tourism but too little that the support can be for majority of pensioners.
We have new question. What kind of requests have seniors with low income in tourism? How can non-profit organizations or civic associations cooperate with state so they can support seniors who are in result of low income out of society? Answer for this question we can get only with active daily centres or organizations. They can take care of senior who we young forget about.

Sources

1. AFEINNOVNET News. Available at http://www.afeinnovnet.eu/ news (Accessed: 15 November 2017).
2. AGE FRIENDLY EUROPE (2016) Backround. Available at http://agefriendlyeurope . org/ about/background (Accessed: 15 November 2017).
3. AGE PLATFORM Senior_Tourism_in_a_nutshell. Available at https://www.Agepla tform.eu/images/stories/Publications/Senior_Tourism_in_a_nutshell.pdf (Accessed: 15 November 2017).
4. AGE PLATFORM Useful documents. Available at http://www.age-platform.eu /us eful documents (Accessed: 13 November 2017).
5. AKSEN- AKTÍVNY SENIOR Poslanie združenia. Available at http://aksen.sk/o-aksene (Accessed: 15 November 2017).
6. AKSEN- AKTÍVNY SENIOR Stanovy. Available at http://aksen.sk/sites/default /file/AkSen_ stanovy.pdf (Accessed: 15 November 2017).
7. EUROSEN Clusters-of-local-culture. Available at http://eurosen.eu/page/en/clusters-of-local-culture (Accessed: 5 November 2017).
8. EUROPE SENIOR TOURISM What is EST? Available at http://www.europesenior tourism.eu/en/queesest/ (Accessed: 5 November 2017).
9. FÓRUM SENIOROV Fórum pre pomoc staršim. Available at http://www.forumsenio rov.sk (Accessed: 22 November 2017).
10. GÚČIK, M. a kol. *Výkladový slovník-cestovný ruch, hotelierstvo a pohostinstvo.* Bratislava : SPN, 2006. 215 s. ISBN 80-10-08360-3.

11. HROZENSKÁ M. a kol. Sociálna práca so staršími ľuďmi a jej teoreticko-praktické východiská. MARTIN : Osveta, 2008. 181 s. ISBN 978-80-8063-282-3.
12. KASPAR, C. *Základy cestovného ruchu*. Banská Bystrica : Univerzita Mateja Bela, Ekonomická fakulta, 1995. 142 s. ISBN 80-901166-5-5.
13. NROZP. Montrealská deklarácia o sociálnom turizme. Available at http://www.nrozp .sk/files/montr_dek.pdf (Accessed: 23 November 2017).
14. GÚČIK, M. *Základy cestovného ruchu*. Banská Bystrica : Univerzita Mateja Bela, Ekonomická fakulta, 2000. 152 s. ISBN 80-8055-355-6.
15. ROLLOVÁ L. Turizmus pre všetkých riešenie interiéru turistických zariadení Available at http://www.nrozp-mosty.sk/zacielene-na-2/item/1126-turizmus-pre-v%C5%A1etk%C3%BDch-%E2%80%93-rie%C5%A1enie-interi%C3%A9ru-turistick%C3%BDch-zariaden%C3%AD.html (Accessed: 23 November 2017).
16. SAK, P. a K. KOLESÁROVÁ, 2012. Sociologie stáří a seniorů. Praha: Grada Publishing, a. s., s. 232. ISBN 978-80-247-3850-5.
17. SENIORTRAVEL Projekt senior travel. Available at *http://www.seniortravel .sk/senior_travel.php* (Accessed: 23 November 2017).
18. SLOVAKRAIL Bezplatné cestovanie vo vlakoch *ZSSK*. Available at http://www.Slo vakrail.sk/sk/bezplatna-preprava.html (Accessed: 3 November 2017).
19. TELECOM (2006) Stratégia rozvoja cestovného ruchu. Available at http ://www.tele com. gov.sk/index/index.php?ids=143964 (Accessed: 3 November 2017).
20. TVNOVINY (2017) Aj tento rok dá štát dôchodcom na kúpele 50 eur, nie však všetkým. Available at http://www.tvnoviny.sk/ekonomika/1865705_aj-tento-rok-da-stat-dochodcom-na- kupele-50-eur-nie-vsak-vsetkym (Accessed: 3 November 2017).
21. ZBIERKA ZÁKONOV Zákon č. 544/2010 Z. *z. Zákon o dotáciách v pôsobnosti Ministerstva práce, sociálnych vecí a rodiny Slovenskej republiky*. Available at https:// www.slov-lex.sk/pravne-predpisy/SK/ZZ/2010/544/20130501 (Accessed: 3 Novemb er 2017).
22. ŽIVOT90 Projekt "Meet Nature". Available at https://www.zivot90.cz/2 08-zahranicni-cinnost/89-evropske-projekty/m-1262-projekt-quotmeet-naturequot# (Accessed: 3 November 2017).

Contact

Mgr. Katarína Sisiková
Katolícka Univerzita v Ružomberku
Hrabovská cesta 1, 034 01 Ružomberok
Slovenská republika
Tel. +421918811569
email: sisikovakatarina@gmail.com

Prof. PhDr. Anna Žilová Ph.D.
Katolícka Univerzita v Ružomberku
Hrabovská cesta 1, 034 01 Ružomberok
Slovenská republika
Tel: +421918722125
email: anna.zilova@ku.sk

IDENTIFIKÁCIA VZŤAHOVEJ VÄZBY DIEŤAŤA V PRÁCI SOCIÁLNEHO PRACOVNÍKA V DETSKOM DOMOVE

IDENTIFICATION OF CHILD'S RELATIONAL BOND USAGE IN SOCIAL WORKER'S PROFESSION AT ORPHANAGE

Nikola Benecová

Abstrakt

Cieľom príspevku je identifikovať vzťahovú väzbu dieťaťa v práci sociálneho pracovníka v detskom domove. Príspevok je zameraný na identifikáciu vzťahovej väzby dieťaťa v práci sociálneho pracovníka v detskom domove, pri ktorom vychádzame z psychodynamických teórií. Brnula (2015) konštatuje, že do psycho-dynamických teórií, ktoré sú v súčasnosti významné pre sociálnu prácu zaraďujeme najmä teóriu vzťahovej väzby. Hašto (2005) opisuje, že psychoanalýza pripisuje veľký význam pre neskorší život človeka. V empirickej časti identifikujeme vzťahovú väzbu dieťaťa v práci sociálneho pracovníka v detskom domove. Empirická časť je realizovaná formou kvalitatívneho výskumu. V rámci kvalitatívneho výskumu využijeme z metód polo štruktúrovaný rozhovor. Výskumnú vzorku predstavuje päť sociálnych pracovníčok a dvaja psychológovia z detských domovov v Dobšinej a Košiciach. Spracovanie dát bude prebiehať pomocou kódovania. Na základe týchto zistení ponúkame odporúčania, ktoré môžu prispieť k zlepšeniu a podpore vzťahovej väzby detí vyrastajúcich v detskom domove.

Kľúčové slová: *Dieťa. Detský domov. Sociálny pracovník. Vzťahová väzba.*

Abstract

The aim of this paper is to identify the child's relational bond in social worker´s profession at the orphanage. The paper is focused on the identification of child's relational bond in social worker´s profession at the orphanage, and based on psychodynamic theories. Brnula (2015) notes that we include relational bond theory between psychodynamic theories, which are nowadays important for social work. Hašto (2005) describes that psychoanalysis attaches great importance for human later life. In the empirical part we identify the child's relational bond in social worker´s profession at the orphanage. The empirical part is realized by form of qualitative research. As part of the qualitative research we use semi-structured interviews method. The research sample represents five social workers and two psychologists from the orphanages in Dobšiná and Košice. Data processing will be done by coding. We offer recommendations based on these results that may contribute to the improvement and promotion of children´s relational bond while growing up in an orphanage.

Keywords: *A child. Orphanage. Social worker. Relational bond.*

Introduction

Aim of the paper is to scrutinize educational environment by transformation of orphanages and to identify child's relational bond in social worker´s profession at the orphanage. In the paper we describe transformation of child´s orphanages by relational bond theory. We identify relational bond in social worker´s profession by qualitative research.

1. RELATIONAL BOND AS BASE OF POSITIVE EDUCATIONAL EFFECT IN ORPHANAGE

Lednická, (2000) describes that social relationship, as relationship of man to man, belongs between primary aspects of life in certain culture. Reality that individual comes into mutual action with other people causes creation of concrete relationship between them.

Brich (2011) says that relational bond is link, which connects people. Child after birth looks for person because of secure relational bond as a secure, care and support. During first year of life child develops relational bond to "main" person for this relational bond. This relational bond is also called save emotional harbour, which guarantees surviving of child. This bond guarantees surviving and health growth of child and because of that it is as important as meal or air for breathing.

Hašto (2005) mentions that trauma, which children go through early years of life, can cause disorganized relational bond. Trauma is result especially when the pain is caused by main person for relational bond. Next kinds of trauma can be caused by often placement at orphanage and repeated lost of relational people.

1.2 Relation bond and psychodynamic theories

Brnula (2015) states that in 20th century the psychoanalysis started to dominate as a kind of problem solutions. Psychoanalysis strongly influenced primary theories of social work and brings change of problem solutions view because social work based on psychoanalysis is orientated on person as a unit. Nowadays we include theory of relational bond into important psychodynamic theories of social work.

Based on Prevendárová (2015) psychodynamic theory solves vexed relationships, intergenerational relations and their transfer into other relationships.

Base of human´s life as social being are interpersonal relationships. Sense of own value and personal growth are happening by meeting other people. Human needs satisfaction and love since birth. Human finds deeper access to itself by relationships where it can develop. Human relationships stimulate and form development. Very important time for relationships is prenatal period. Experiences of fear, refusal or even love and trust have an effect on embryo as emotional mark just like biochemical influence for ex. mother drinking alcohol or smoking cigarettes. Base relationship and feeling are mainly made in prenatal period (Frielingsdorf, 2002).

Hašta (2005) thinks that psychoanalysis lead into childhood. Need of relational bond with close related person is biologically coded in human like hunger or thirst. Psychoanalysis attribute to childhood great meaning for later human´s life. Experience related with this need is deeply recorded in personality of human and influences its social behaviour during whole life.

2. PERSONALITY OF ORPHANAGE´S SOCIAL WORKER

Fedorová (2006) thinks that transformation of orphanage roots in transformation of social workers from collective to individual education. By this philosophy every social worker working in orphanage should be transform.

Swaton (2004) mentions that social workers, who dispose assumptions for this hard profession, should be professional hart of every orphanage.

Social workers must fulfil next mentioned needs of child in orphanage:

1. *Basic*- safety environment, clothes, shoes, meal and healthcare
2. *Evolutionary*- self-assurance, education, discipline, positive leadership
3. *Emotional*- to control emotions, building their own value orientation, coping with loss
4. *Interpersonal*- relationships of child with biological family and in orphanage
5. *Social*- religion, sport, culture

6. *Needs developed from developmental delay*- such as abuse, neglect, sexual abuse, loss and traumas, emotional deficit

Swaton (2004) mentions these abilities to basic needs for social worker personality in orphanage:

1. *Basic (special) abilities:* quality education, general overview, administrative work
2. *Personal and moral abilities:* empathy, emotional maturity, stability, ability to motivate, responsibility, ability to fulfil child´s needs, knowledge of work with children or youth, ability to accept personality of child, natural communicative abilities, usage of appropriate forms and methods, organizational abilities, knowledge of evaluation (to give an evaluation and to accept evaluation)
3. *Practical and manual abilities:* manual skill, development of relationship to housework, relationship to culture, art and sport

Fedorová (2006) says that social worker in orphanage should be professional for individual work with children which is systematic, purposeful, focused to meet the needs of each child. Good, patient, persistent social worker should give to child feeling of certainty, love, safety and by that mitigates psychical deprivation. Social worker in orphanage should dispose with these characteristics: honesty, justice, patience, openness, sense for humour. Education of children in orphanage should be mission and because of that social worker should apply here whole personality, expertise, abilities and knowledge.

3. EMPIRIC STUDIES ABOUT PROCESS OF EDUCATION´S TRANSFORMATION IN SELECTED ORPHANAGES

Škoviera, Nosková (2013) realised research where they compared selected rate of adolescents in orphanage and families. The research sample consisted of 109 adolescents in age 15-19 years. Significant perceptual differences were in rate of family. The results are: children from orphanage experience their relationship with family more ambivalent than children who grow up in families. They don´t see family as certainty. Research probe offers more impulses we need to think about, examine and transfer into practice. Low rates of family´s value show that relationships of young people, who grow up in orphanage are uncertain, disorganized.

For comparison we mention Andworth´s research from 1979 called "Strange situation classification". There she examined the relational bond´s difference between children. Research took place secretly in small glass room. The research sample consisted of 100 children in age 12-18 months. Andworth by her research identified three variations of relational bond. Safety relational bond prevailed in children with sensitive care. Uncertain relational bond prevailed in with neglected care and child´s needs are ignored. The research shows that uncertain, ambivalent relational bond is connected with higher risk of social and emotional problems. (Ainsworth, 1979)

Psychologist Rene Spitz in his research watched two groups of children, where the first group were children born by women in prison. These women took non-stop care of these children in prison nursery. The second group were children from orphanage. Nurses came to orphanage to change diapers and to feed children. One nurse had eight children to care for so because of high number some children were unnoticed or neglected and there was also ignorance of children´s needs. Children who grew up with mothers in prison nursery were exposed non-stop care and nursing. At the end of research we can state that children from orphanage demonstrating a lack of social relationships. These children were prone to different illnesses and infections, where they suffer by deprivation and absence of love and relationships. On the contrary children growing up in prison nursery constantly thrive. (Vemy, Weintraub, 2013)

From these researches we can state that relational bond makes the base for healthy, psychosomatic child´s development. Absence of safety relational bond can lead to violation of healthy, psychosomatic, harmonic human´s development. For that it is important that social

workers working with children in orphanage know need of fulfilling child´s needs and to develop and to support safety relational bond.

4. RESEARCH METHODOLOGY

We used in empirical part qualified research, where the main aim was to identify relational bond of children in work of orphanage´s social worker. We asked many orphanages from Košice region to cooperate but only two of them were willing to cooperate. Research sample consisted of five social workers and two psychologists from orphanage in Dobšiná a Košice. From methods we used semi-structured interview. In our research we focused on relational bond, where the main question was: "Why the relational bond between children and parent or social worker is such important?" Technique we used for data processing open coding in the grounded theory.

Gavora (2007) says that open coding is segmentation entries and identification of basic categories, while we set also their characteristics within each characteristic of their dimension.

Chart no. 1: Characteristic of social workers working in orphanages

	Practise	*Qualification*	*Department*	*Profession*
1.Participant (P1)	21 years	PhDr.	Social work	Social worker
2. Participant (P2)	15 years	Mgr.	Social work	Social worker
3. Participant (P3)	20 years	Mgr.	Social work	Social worker
4. Participant (P4)	25 years	Mgr.	Social work	Social worker
5. Participant (P5)	25 years	Mgr.	Social work	Social worker
6. Participant (P6)	5 years	Mgr.	Psychology	Psychologist
7. Participant (P7)	5 years	Mgr.	Psychology	Psychologist

Source: own processing

4.1 Coding process

Our coding process was as follows:

- Each interview was separately coded and then the comparison of codes was realized
- From individual codes we created category and subcategory, which showed answers to our questions

Chart no. 2: Categories, subcategories, concepts

Category	Subcategory	Concepts
Opinion of social worker on relational bond between parent and child	Relationship	Child´s hearing, understanding of child, fulfilling of basic needs such as: basal certainty, trust, feeling of safety, base for entire child´s survive, base for creating healthy family and others relational patterns in future
Correlation between family issues and relational bond	Family issues	Aggressiveness, alcohol, abuse, neglect of the child. By this theory that family issues are directly related with relational bond we follow the fact that "every relationship is bearer of change" (positive or negative)
Help for children growing in orphanage	Disorders of relational bond	Creation of one relational bond between one main person and child, parents education, invitation for parents in orphanage, cooperation with more experts in cases of relational bond disorders (psychologist, psychiatrist, doctor), help with learning, cooperation with free time activities
Activity supporting relational bond	Supporting of relational bond	Praise, guidance of child, attention, help with learning, visit parents, games, respectful and effective communication, tourism, free time activities
The way how to find out the relational bond to biological parents	Tests of relational bond	Conversation with child, child´s drawing, questionnaire E.M.B.U., questionnaire ECR-R, questionnaire for childhood traumas, Bielefeld´s questionnaire, questionnaire of client´s expectations

Source: own processing

4.2 Transcript of recipients´ testimony

Question no. 1: Why is the relational bond between children such important?

For the question were answered following answers:

P1: *..."Child has feeling to have someone – relational person, who cares about child, listen, to advice, to improve. Child has feeling to have someone it can count on, talk to, to show of etc. "*

P2: ..."because there all is beginning and how it is build then it work like that."
P3: ..." If the parent wants to submit own life experiences, to affect child´s character and positively influence it, Parent must have strong positive relationship with that child – or bond to let child feel loved=happy."
P4: ..."If the child doesn´t have in early age "safety emotional harbour" as affection and emotional closeness from relational person (mostly mother) it can lead to many disorders. Relational person, who is inaccessible or her/his behaviour is dangerous, cause anxiety or fear can affect next life as panic, phobic, and anxiety disorders. Corrupt relational bond is closely connected with occurrence of psychopathology in later age (research-proof)."
P5: ..."I think that relational bond fulfil child´s basic need of basal certainty, trust in world, feeling of safety in world and trust of being generally. So classic, feeling of certainty as it is showed everywhere. I often see that children coming here probable didn´t have fulfil primary emotional needs and today they have first of all troubles with themselves and of course later with vicinity. It is shown by greater uncertainty and shyness or opposite oversized speeches, children often can´t accordingly show emotions, don´t have boundaries, want attention or they don´t believe that they are good enough to be loved if no one shows that love to them and in relationships they usually fail. I believe that they try to fulfil glass which was not filled by their mother in early childhood, but that glass has deep bottom now."
P6: ..."Relational bond is base for development and entire "surviving" of human. It is also base of creation healthy not only family but also other relational patterns in future."
P7: ..."Relational bond is created between child and person, who satisfies child´s needs while in later age child concerns attention to other relational people. Primary people, their behaviour and interactions connected with children directly influence and form their expectations and interactions with others over their whole life. In case that these interactions are absent or negative there is no possibility to grow up without troubles. Relational bonds in later life are unstable, easy defeasible, even pathologic.

Question no. 2: Does have family issues connection with relational bond?
For the question were answered following answers:
P1: *..."Yes- if there are serious issues – parents´ alcoholism, abuse, child´s care neglect, aggression or another: child has problem with building relationships – in collective – mistrust to other children, adults, surface or no relationships at all."*
P2: *..."I think they are really related, because by different family issues parent doesn´t have abilities, abilities, time or financial resources to spend enough time by useful activities together with child and to build and strengthen relational bond."*
P3: *..."person is able to give only that what he/she got. The most he/she got as a child and if he/she doesn´t have it there is nothing to give."*
P4: *..." Yes of course. Behaviour of each person depends on education he/she got in childhood and which relationships he/she had with parents and siblings. By other relationships it just continues."*
P5: *..."By this theory that family issue are related with relational bonds we consider fact that "each relationship is bearer of change" (positive or negative). Without relationship there is no option to harmonise or pathologize family environment. Quality of relational bond determine also strategy of control whatever personal or relational (family) issues. In that case we see family as a system of family relationships which are interact."*
P6: *..."type of relational bond between mother and child will be probably shown in later child´s life (for ex. to feel greater discomfort, tension or uncertainty and inappropriateness) this can influence relational bonds in family or can cause escaping behaviour like drugs."*
P7: *..."yes for sure."*

Question no. 3: What can help to children, who have relation bond´s disorder?
For the question were answered following answers:
P1: *..."The same proportion of work with child as with parents – parent or person who is taking non-stop care of child, to create relationship first of all with close environment and then with others – peers, family relatives, schoolmates, teacher etc. If the child creates one strong relationship, it has chance to create another less strong but for child important relationships."*
P2: *..."To invite parent in orphanage to spend some time with child."*
P3: *..."Parents´ education – after child´s birth parents should mandatory go to course – at least woman."*
P4: *..."For those children is very important, when they get relational person, who will be important and they will feel safety, not only love but also boundaries and rules."*
P5: *..."To create one main person for relational bond with child."*
P6: *..."In case of disorders of relational bond is needed multidisciplinary cooperation, or cooperation with more experts (psychologist, social worker, special pedagogue, educational adviser and others), parent´s education, to invite parents in orphanage where parent can spend some time with child, regular communication with child about experiences, about perception and to experience, to praise and to shape child, help with learning, cooperation between parent and child at free-time activities."*
P7: *..." Participation of child and parent at free-time activities and games, home preparation with child."*

Question no. 4: Which activities should social worker do for supporting relational bond?
For the question were answered following answers:
P1: *..."I think that the important thing is make the child to create primary "relationship" to expert, who will work at creation of other relationships – to family, to sibling, family related, educator or others. Regularly communicate with child – about its experiences, about perception and to experience, to praise and to shape child, help with learning, games, walks – nature, city, explore the area, animals, helpful could be pictured books, TV-cartoons, music, in orphanage – visiting parents, siblings – in their family area, to respect, to listen, to understand child."*
P2: *..."Respectful, effective communication, attention, praise of child."*
P3: *..."To spend enough time with child and to take care of it.*
P4: *..."I like to cook with children and make tourism. In deeds it is not probable about activity but to catch the moment when the child is open to percept what the other wants to say. I think this could be activity where it is able to experience positive emotions or special activities where is something new."*
P5: *..."To give attention to child, to praise, to support, common free-time activities*
P6: *..."Each expert, whose aim is to heal family system or to reduce disorders of relational bond, should concentrate attention to reinforce of family structure and to increase number of protective factors. We arrange between protective factors: "sources of family resistance" (material, psychosocial and others); "strategies of load control" (coping)."*
P7: *..."Activities where the child can experience with positive emotions."*

Question no. 5: Which way can we find out the relational bond between child/adolescent and its parent?
For the question were answered following answers:
P1: *..." Conversation with child, drawing."*
P2: *..."There are some ways for sure but I don´t have overview about it."*

P3: *..."Questionnaire E.M.B.U. where you can find out how the adolescents were educated by parents."*
P4: *..."Child´s drawing, because drawing is a kind of game for child and there it can express feelings. Child doesn´t know that it is examined.*
P5: *..."Questionnaire, how we sense close relationships, questionnaire ECR-R."*
P6: *..."Questionnaire for traumas in childhood, my memories how I have been educated (E.M.B.U.), how I sense close relationships (ECR-R). Bielefeld questionnaire of client´s expectations."*
P7: *..."Child´s drawing, which is also gate to child´s soul."*

4.3 Interpretation of research results

Research entries we got from interview with social workers and psychologists from orphanage in Dobšiná and Košice. Interviews were rewrote and coded by open coding. By open coding we created categories, subcategories by which we answered our research questions.

We used in research following questions:

1. *Why is the relational bond between children such important?*
2. *Does have family issues connection with relational bond?*
3. *What can help to children, who have relation bond´s disorder?*
4. *Which activities should social worker do for supporting relational bond?*
5. *Which way can we find out the relational bond between child/adolescent and its parent?*

First research questions in qualitative research was: *Why is the relational bond between children such important?* All percipients know the importance of relational bond between child and parent. From interview we see that all questioned percipients agreed about huge importance of relational bond between child and parent.

Second questions in qualitative research was: *Does have family issues connection with relational bond?* In this question if the family issues have connection with relational bond percipients also agreed that some family issues have relation also with relational bond. If there is no fulfilled need of safe relational bond, child is endangered and these negative relationships are shown in further relationships.

Third research questions in qualitative research was: *What can help to children, who have relation bond´s disorder?* Based on interviewing we found out that in case when the child is put into orphanage, the most important thing is to prepare for the child main person for relational bond. In case that child is in family it is important to spend enough time with child and to take care of it by different free-time activities, games, home preparation for school education and communication.

Fourth research questions in qualitative research was: *Which activities should social worker do for supporting relational bond?* Strengthening and supporting of relational bond especially to children and adolescents where are common disorders of relational bond enormously important. Percipients agree that for supporting the relational bond it is important to spend time with child and to take care about it, support it, shape it, pleased it, make free-time activity and kinds of activity where the child feels that it is loved and to experience happiness and positive emotions.

Fifth research questions in qualitative research was: *Which way can we find out the relational bond between child/adolescent and its parent?* From the answers we see that there are many questionnaires to examine relational bond for ex. child´s drawing, questionnaire ECR-R. (How we sense close relationships), questionnaire for childhood traumas, questionnaire E.M.B.U. (My memory, how they educated me), Bieledeld´s questionnaire. Percipients agree that child´s drawing can be useful source of knowledge the child´s relational bond. For

adolescent there were mostly questionnaire E.M.B.U. – My memory, how they educated me and questionnaire ECR-R – How we sense close relationships.

5. DISCUSSION

Based on realized research we can say these advices in social worker profession in orphanage:

- To create main person for relational bond to child in orphanage.
- To organize free-time activities and different energizing games in orphanage.
- To spend enough time with child, to praise, to shape, to encourage, to motivate.
- To help with preparation to school.
- Effective communication.
- To create activities where child can sense how is appreciated, original and loved.

Lednická (2000) realized a research in orphanage in Bernolákovo. The aim of the research was to find out position of child in educational group, to map relationships between children and then draw up program concentrated on improvement of relationships. At the beginning of research they gave a questionnaire to children. After that they used educational program for improvement of relationships. After realization of program children again filled the same questionnaire up and the author compared them to first questionnaire. Results showed that program realized in educational group was well-defined because from results we see improvement of all variables that program was concentrated to. At the end author shows these advices: to be interested in relational bond, social workers should have know relationships between children, position of individual in group, regularly watch changes in relationships, which can help with relationship improvement, after realizing any conflicts it is necessary to discuss and solve them. By the results it is clear that relationship influence between children is possible and necessarily.

Bibliography

1. AINSWORTH, M. *Infant–mother attachment.* In American Psychologist. [online]. Vol 34 (10), Oct. 1979, 932-937.[cit. 2015-10-28]. Dostupné na internete:http://dx.doi.org/10.1037/0003-066X.34.10.932
2. BRISCH, K.H. *Bezpečná vzťahová väzba*. Trenčín: F, Pro mente sana, s.r.o. 2011. 150 s. ISBN 978-80-88952-67-1
3. BRNULA, P. a kol. *Úvod do teórií sociálnej práce*. Bratislava: IRIS, 2015. 212 s. ISBN 978-80-89726-36-3
4. FEDOROVÁ, M. *Ako ďalej v transformácii 4. výchovného piliera v detskom domove*. In Vychovávateľ. ISSN 0139-6919, 2006, roč. 55. č. 9, s. 33-34
5. FEDOROVÁ, M. *Transformácia výchovných podmienok v Detskom domove SLNIEČKO v Polomke.* In Vychovávateľ. ISSN 0139-6919, 2004, roč. 55. č. 6, s. 31-35
6. FEDOROVÁ, M. *Výchova detí k zodpovednosti v detskom domove*. In Vychovávateľ. ISSN 0139-6919, 2005, roč. 55. č. 3, s. 29-31
7. FRIELINGSDORF, K. *Agrese vytváří vztahy*. Kostelní Vydří: Karmelitánské nakladatelství. 2000. 159 s. ISBN 80-7192-502-0
8. GAVORA, P. *Sprievodca metodológiou kvalitatívneho výskumu*. Bratislava: Univerzita Komenského, 2007. 229 s. ISBN 978-80-223-2317-8
9. HAŠTO, J. *Vzťahová väzba Ku koreňom lásky a úzkosti.* Trenčín: F, Pro mentesana, 2005. 300 s. ISBN 80-88952-28-X
10. LEDNICKÁ, J. *Sociálne vzťahy medzi deťmi v detských domovoch*. Bratislava: Metodické centrum v Bratislave, 2000. 48 s. ISBN 80-8052-083-6
11. LEDNICKÁ, J. *Výchovný program formovania vzťahov medzi deťmi v detských domovoch*. In Vychovávateľ. ISSN 0139-6919, 1999, roč. 55. č.3-4, s. 19-22

12. PAPŠO, P. *Zvyšovanie kvality výchovného prostredia prostredníctvom transformácie detských domovov.* In Vychovávateľ. ISSN 0139-6919, 2008, roč. 56. č. 9, s. 33-35
13. PREVENDÁROVÁ, J. *Rodinná terapia a poradenstvo*. Bratislava: Humanitas, 2001. 109 s. ISBN 80-968053-6-3
14. SWATON, A. *Osobnosť výchovného pracovníka v detskom domove rodinného typu*. In Vychovávateľ. ISSN 0139-6919, 2004, roč. 55. č. 2, s. 8-10
15. ŠKOVIERA, A. NOSKOVÁ, I. *Komparácia a analýza vybraných hodnôt adolescentov z detských domovov a z rodín*. In Mládež a spoločnosť. ISSN 1335-1109, 2013, roč. 56, s. 63-70
16. VERNY, T. R., WEINTRAUBOVÁ, P. *Rodičovstvo od počatia*. Bratislava: Pozsony/Pressburg, 2013. 296 s. ISBN 987-80-85474-58-9

Kontaktné údaje

Mgr. Nikola Benecová
Katolícka univerzita v Ružomberku, Pedagogická fakulta, Katedra sociálnej práce
Hrabovská cesta 1, 031 04 Ružomberok
Tel.č.: 0915 639 770
e-mail: nikola.benecova81@gmail

PORÓWNANIE OPINII NA TEMAT SZKOLNICTWA STUDENTÓW KIERUNKÓW PEDAGOGICZNYCH I STUDENTÓW INNYCH KIERUNKÓW

THE COMPARISON OF PEDAGOGY STUDENTS AND STUDENTS OF OTHER FIELDS OF STUDY IN TERMS OF OPINIONS ABOUT EDUCATION

Bartosz Atroszko

Abstrakt

Celem niniejszego artykułu jest przedstawienie wyników badania opinii na temat szkolnictwa przeprowadzonego na próbie 212 studentów różnych kierunków studiów Uniwersytetu Gdańskiego. Badanie zostało przeprowadzone w maju i w czerwcu 2017 r. Respondenci wypełnili papierowy kwestionariusz w którym zaznaczyli, na ile zgadzają się lub nie zgadzają z każdym spośród 14 stwierdzeń dotyczących różnych aspektów polskiego szkolnictwa. Badanie te stanowi kontynuację badania przeprowadzonego w grudniu 2016 r. i w styczniu 2017 r. na próbie studentów kierunków pedagogicznych Uniwersytetu Gdańskiego. W artykule wyniki obu grup studentów są porównywane. Wyniki badania wskazują na to, że studenci, niezależnie od kierunku studiów, mają w większości negatywne opinie o polskim szkolnictwie i dostrzegają potrzebę zmiany w dziedzinie szkolnictwa.

Słowa kluczowe: *opinie na temat szkolnictwa, opinie na temat edukacji, studenci pedagogiki.*

Abstract

The aim of this paper is to present the results of a survey on students' opinions about the Polish education system. The study was conducted in May and June 2017. The questionnaire was filled by 212 students of various fields of study at University of Gdańsk. This study is a continuation of the study conducted in December 2016 and in January 2017, which was also carried out by students of the University of Gdańsk, but it concerned only students from three fields of study: pedagogy, pedagogy of early education and special education. In the article, the results of both groups of students are compared. Students, regardless of the field of study, mostly have negative opinions about Polish education and recognize the need for change in this field.

Keywords: *opinions about education, student's opinions, pedagogy students.*

1 WPROWADZENIE

W grudniu 2016 r. i w styczniu 2017 r. przeprowadzone zostało badanie na próbie 443 studentów kierunków pedagogicznych (pedagogiki, pedagogiki wczesnej edukacji i pedagogiki specjalnej) studiujących na Wydziale Nauk Społecznych Uniwersytetu Gdańskiego. Badanie dotyczyło opinii studentów na temat polskiego szkolnictwa podstawowego, gimnazjalnego oraz ponadgimnazjalnego. Z przeprowadzonego badania wynikało, że opinie studentów na temat szkolnictwa są w większości negatywne. Pozytywne opinie na temat edukacji w Polsce pojawiały się w ankietach tak rzadko, że wyniki te były zaskoczeniem dla osób przeprowadzających badanie. Wyniki tego badania zostały

przedstawione w artykule pt. *Pedagogy students' opinions on education in Poland*.[1] To, że opinie studentów kierunków pedagogicznych były w większości negatywne, można interpretować na wiele różnych sposobów. Świadczyć one mogą o niskiej jakości edukacji w Polsce, o krytycznym nastawieniu przyszłych pedagogów do zastanej rzeczywistości edukacyjnej, o bardzo dużych oczekiwaniach społecznych formułowanych względem szkolnictwa, o konieczności zmiany dominującego w Polsce paradygmatu edukacyjnego lub o generalnie negatywnej ocenie samej idei szkolnictwa powszechnego w którym wszyscy uczniowie (niezależnie od zainteresowań i zdolności) otrzymują podobną, standardową usługę edukacyjną.

Jednoznaczną interpretację zjawiska występowania negatywnych opinii na temat szkolnictwa utrudnia wielość potencjalnych perspektyw teoretycznych występujących w badaniach edukacyjnych. Z jednej strony badacze zwracają uwagę na to, że polskie szkolnictwo boryka się z poważnymi problemami,[2] że dominujący w Polsce paradygmat edukacyjny stoi w sprzeczności z aktualną wiedzą na temat tego, w jaki sposób zachodzi proces uczenia się,[3] że szkoła zamiast pełnić rolę awangardy współczesności schodzi do roli skansenu,[4] czy że systemy edukacji na całym świecie są niedostosowane do wyzwań współczesności, ponieważ powstały w innej epoce i zostały ukształtowane na potrzeby ówczesnych społeczeństw.[5] Z drugiej strony zwraca się uwagę na to, że szkolnictwo jest krytykowane ze wszystkich stron i to w sposób bezpardonowy (czasami nawet przesadny)[6] oraz że edukacja zawsze budziła i budzi duże emocje (również te negatywne), ponieważ wobec niej formułowane są dosyć wysokie oczekiwania społeczne, które często pozostają niespełnione.[7] W ramach tego krótkiego artykułu empirycznego problem ten z pewnością nie zostanie w pełni wyjaśniony. Rzeczywistość edukacyjna jest wielowymiarowa, bardzo złożona i podatna na różnorodne interpretacje. W związku z tym żadne pojedyncze badanie w dziedzinie edukacji nie wystarczy, aby wyjaśnić dane zagadnienie całościowo i dogłębnie. Niemniej, niniejszy artykuł stanowić może – co prawda drobny, ale jednak - krok w tym właśnie kierunku. Przekonanie o tym, że polski system edukacji wymaga zmian, nie jest niczym nowym w pedagogice. Od wielu lat piszą o tym osoby będące autorytetami pedagogicznymi, eksperci i badacze. Brakuje jednak empirycznych badań na temat opinii o szkolnictwie. Tego typu badania są potrzebne, aby dowiedzieć się, na ile powszechne jest przekonanie o potrzebie zmian i czy nie jest ono przypadkiem głównie domeną osób zawodowo zajmujących się edukacją.

W związku z powyższym, postanowiono przeprowadzić dodatkowe badanie za pomocą tego samego kwestionariusza, ale na innej grupie studentów, kształcących się na innych kierunkach studiów. W ramach kontynuacji badania przeprowadzono w maju i w czerwcu 2017 r. badanie ankietowe na próbie 212 studentów. Celem tego badania była próba odpowiedzi na pytanie, czy studenci innych kierunków studiów niż pedagogiczne również w większości będą mieli negatywne opinie na temat polskiego szkolnictwa? Przyjęto założenie, że jeśli odpowiedź na tak postawione pytanie będzie twierdząca, to znaczy to, że potrzeba

[1] B. Atroszko, L. Sendal, A. Swarra, *Pedagogy students' opinions on education in Poland*. [w] red. M. McGreevy, R. Rita, „CER Comparative European Research 2017", Sciemcee, Londyn 2017, s. 115–119.
[2] Z. Kwieciński, *Nieuniknione? Funkcje alfabetyzacji w dorosłości*, Wydawnictwo Uniwersytetu Mikołaja Kopernika, Toruń-Olsztyn 2002, s. 115.
[3] D. Klus-Stańska, *Dlaczego szkolna kultura dydaktyczna się nie zmienia*, „Studia Pedagogiczne" nr 14, 2011, s. 47.
[4] D. Klus-Stańska, *Bariery zmiany szkolnej kultury dydaktycznej*. [w:] „Praktyka tworzenia edukacyjnej wspólnoty", red. nauk. A. Sajdak, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2005.
[5] K. Robinson, wystąpienie pt. *Changing Education Paradigms* w Royal Society of Arts z 16 czerwca 2008 r. [dostęp 12.12.2017, https://www.ted.com/talks/ ken_robinson _ changing_education _paradigms].
[6] A. Nalaskowski, *Niepokój o szkołę*, Oficyna Wydawnicza „Impuls", Kraków 1995, s. 55.
[7] K. Przyszczypkowski, *Polityczność (w) edukacji*, Wydawnictwo Naukowe UAM, Poznań 2012.

zmiany edukacyjnej jest dostrzegana nie tylko przez osoby zajmujące się edukacją zawodowo (lub kształcące się w tym kierunku), ale również przez inne osoby, nie wiążące swojej przyszłości z sektorem edukacji. Wyniki tego drugiego badania zostaną zaprezentowane w niniejszym artykule, natomiast wyniki poprzedniego badania, które zostało już przedstawione szczegółowo w poprzednim artykule,[8] tym razem zostaną przedstawione w bardziej syntetycznej formie jako punkt odniesienia dla wyników badania przeprowadzonego w maju i czerwcu 2017 r.

2 METODY

2.1 Uczestnicy badania

W badaniu wzięło udział 212 studentów Uniwersytetu Gdańskiego, w tym 158 kobiet (74,53%) i 52 mężczyzn (24,53%), zaś 2 osoby (0,94%) nie zaznaczyły w ankiecie płci. Średnia arytmetyczna wieku respondentów wyniosła 20,82 lat (*SD* = 2,09). Najmłodsza osoba miała 18 lat, zaś najstarsza 38 lat. 6 osób (2,83%) nie zaznaczyło w ankiecie ile ma lat. Uczestnicy badania studiowali na różnych kierunkach studiów i na różnych wydziałach Uniwersytetu Gdańskiego: 60 osób studiowało socjologię, 48 osób pracę socjalną, 45 osób amerykanistykę, 23 osoby dziennikarstwo i komunikację społeczną, 20 osób filologię angielską, zaś 12 osób historię. 4 osoby nie zaznaczyły w ankiecie kierunku studiów, ale wiadomo, że byli to studenci Wydziału Filologicznego, a więc amerykanistyki lub filologii angielskiej. Większość uczestników badania studiowało na Wydziale Nauk Społecznych (131 osób, 61,79%). Oprócz tego respondenci studiowali na Wydziale Filologicznym (69 osoby, 32,55%) oraz na Wydziale Historycznym (12 osób, 5,66%).
Wszyscy respondenci byli uczestnikami studiów licencjackich: 97 studentów (45,75%) studiowało na drugim roku studiów, 89 osób (41,98%) na pierwszym roku studiów, zaś 22 osoby (10,38%) na trzecim roku studiów. 4 osoby (1,89%) nie zaznaczyły na którym byli roku studiów. Wszyscy badani studenci studiowali w trybie stacjonarnym (100%).

2.2 Pomiar

W badaniu wykorzystano autorski *Kwestionariusz opinii o polskim szkolnictwie (podstawowym, gimnazjalnym i ponadgimnazjalnym)*. Narzędzie te składa się z 14 stwierdzeń dotyczących szkolnictwa, spośród których połowa została sformułowana w sposób pozytywny (świadczący o dobrym stanie edukacji), a druga połowa została sformułowana w sposób negatywny (świadczący o złym stanie edukacji). Wypełniając kwestionariusz respondenci zapoznali się z następującą instrukcją: *Proszę, abyś wskazał(a), jak bardzo zgadzasz się lub nie zgadzasz się z poniższymi stwierdzeniami dotyczącymi polskiego szkolnictwa*, a następnie ustosunkowali się do poszczególnych stwierdzeń mając do dyspozycji poniższą 7-stopniową skalę:

Całkowicie się nie zgadzam	*Nie zgadzam się*	*Raczej się nie zgadzam*	*Ani tak, ani nie*	*Raczej się zgadzam*	*Zgadzam się*	*Całkowicie się zgadzam*
1	2	3	4	5	6	7

2.3 Procedura badawcza

Przy zbieraniu danych wykorzystano metodę nieprobabilistycznego doboru próby, opartą na dostępności badanych. Studenci zostali poproszeni w trakcie ćwiczeń i wykładów na uczelni o udział w anonimowym badaniu ankietowym. Ponad 90% wszystkich studentów zgodziło się na udział w badaniu. Wszystkie badane osoby wypełniły papierowy kwestionariusz.

[8] B. Atroszko, L. Sendal, A. Swarra, *Pedagogy students' opinions*..., dzieło cytowane.

2.4 Opis statystyczny

Poszczególne odpowiedzi respondentów zostały zaprezentowane na wykresach w podziale na trzy główne kategorie: odpowiedzi świadczące o tym, że respondenci zgadzają się ze stwierdzeniem (odpowiedzi *Raczej zgadzam się*, *Zgadzam się*, *Całkowicie się zgadzam*), odpowiedzi świadczące o tym, że respondenci nie zgadza się ze stwierdzeniem (odpowiedzi *Raczej nie zgadzam się*, *Nie zgadzam się*, *Całkowicie się nie zgadzam*) oraz odpowiedzi świadczące o tym, że respondenci nie mają jednoznacznej opinii w danej kwestii (odpowiedzi *Ani tak, ani nie*).

Wszystkie wykresy w niniejszym artykule zostały opracowane w taki sposób, że kolumny przedstawiające odsetek negatywnych opinii na temat szkolnictwa zawsze mają kolor czerwony (niezależnie od tego, czy wyrażają one aprobatę, czy dezaprobatę wobec konkretnego stwierdzenia), kolumny przedstawiające odsetek pozytywnych opinii na temat edukacji zawsze mają kolor zielony, zaś kolumny przedstawiające odsetek odpowiedzi osób nie mających konkretnej opinii (*Ani tak, ani nie*) są przedstawione za pomocą koloru żółtego.

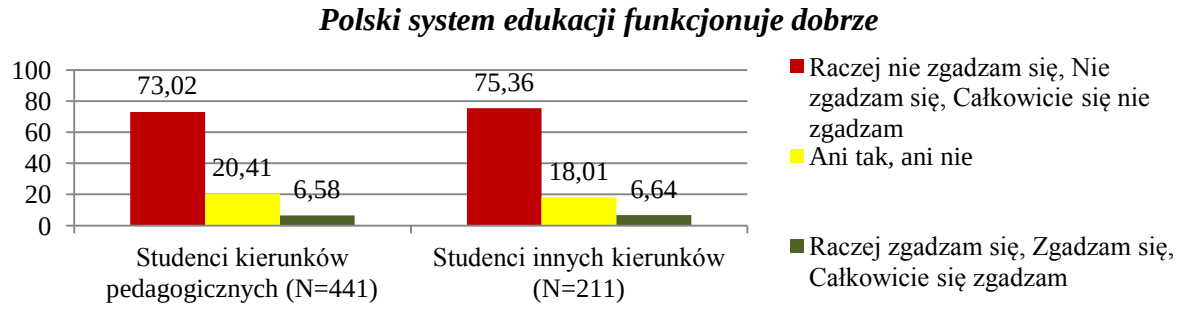
Wszystkie statystyki (procenty, średnie arytmetyczne, odchylenie standardowe, sumy) zostały policzone przy użyciu programu SPSS Statistics 24.0.

3 REZULTATY

W grupie studentów innych kierunków niż pedagogiczne blisko trzy czwarte badanych osób (75,36%, 159 osób spośród 211) nie zgodziło się ze stwierdzeniem, że *Polski system edukacji funkcjonuje dobrze*. Ze stwierdzeniem zgodziło się 6,64% badanych (14 osób), zaś 18,01% (38 osób) nie miało zdania. Dla porównania w grupie studentów kierunków pedagogicznych ze stwierdzeniem tym nie zgodziło się 73,02% badanych (322 osoby spośród 441), 6,58% osób (29 osób) zgodziło się, zaś 20,41% badanych (90 osób) nie miało jednoznacznej opinii (wykres 1).

Wykres 1

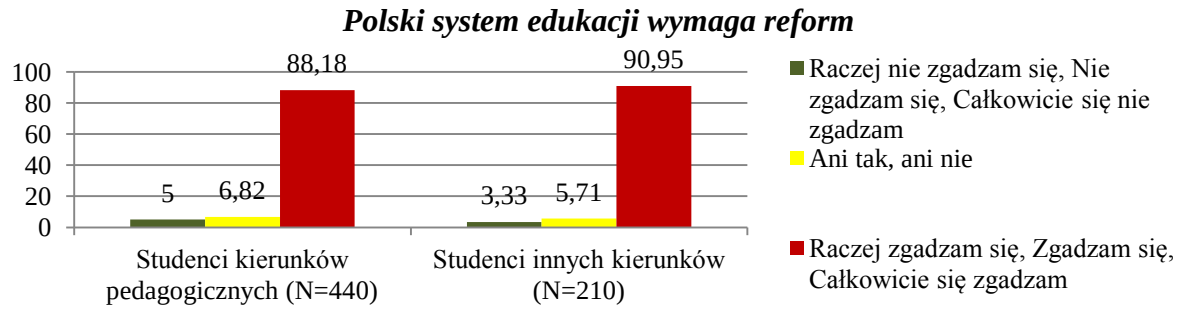
Porównanie dwóch grupy studentów pod względem ustosunkowania się do stwierdzenia „Polski system edukacji funkcjonuje dobrze”



9 na 10 badanych studentów (90,95%, 191 osób na 210) innych kierunków niż pedagogiczne zgodziło się ze stwierdzeniem *Polski system edukacji wymaga reform*, 3,33% (7 osób) nie zgodziło się z tą opinią, zaś 5,71% (12 osób) nie miało zdania. Dla porównania 88,18% (388 osób spośród 440) studentów kierunków pedagogicznych zgodziło się z tym stwierdzeniem, 5% (22 osoby) nie zgodziło się z tym stwierdzeniem, zaś 6,82% (30 osób) nie miało zdania (wykres 2).

Wykres 2

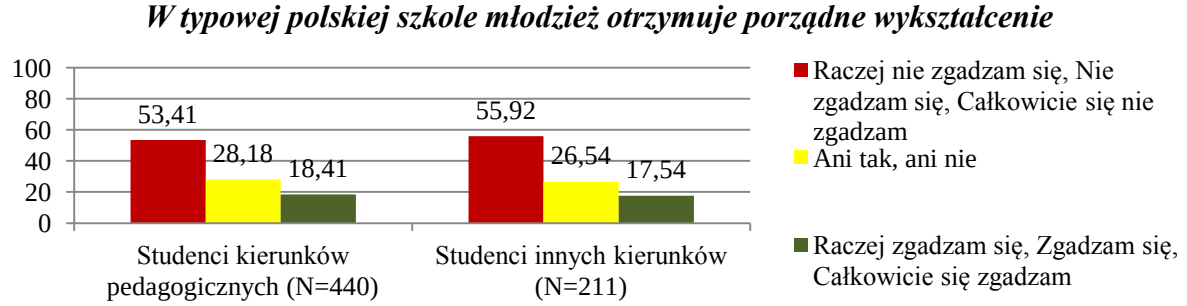
Porównanie dwóch grupy studentów pod względem ustosunkowania się do stwierdzenia „Polski system edukacji wymaga reform”



Większość studentów (55,92%, 118 osób spośród 211) innych kierunków niż pedagogiczne nie zgodziła się ze stwierdzeniem, że *W typowej polskiej szkole młodzież otrzymuje porządne wykształcenie*, zaś 17,54% (37 osób) zgodziło się z tym stwierdzeniem. 26,54% (56 osób) nie miało zdania. Również większość studentów kierunków pedagogicznych (53,41%, 235 osób spośród 440) nie zgodziła się z tym stwierdzeniem, zaś 18,41% (81 osób) zgodziło się. 28,18% nie miało zdania (124 osoby) (wykres 3).

Wykres 3

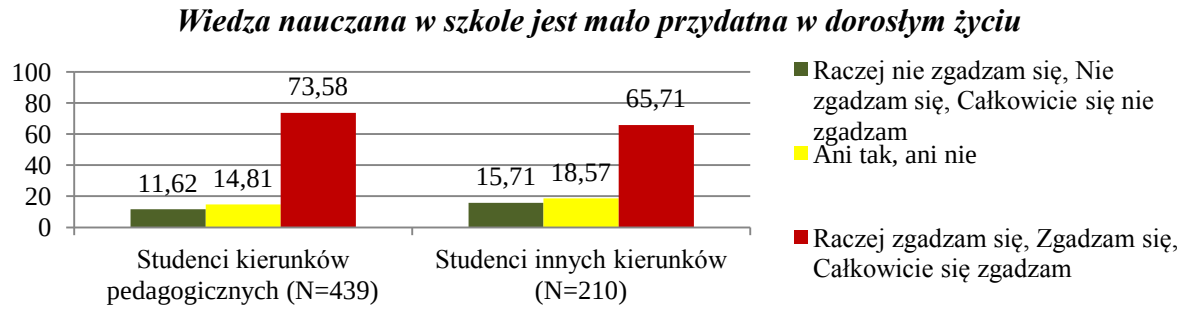
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „W typowej polskiej szkole młodzież otrzymuje porządne wykształcenie”



W grupie studentów innych kierunków niż pedagogiczne większość badanych osób (65,71%, 138 osób spośród 210) zgodziła się ze stwierdzeniem *Wiedza nauczana w szkole jest mało przydatna w dorosłym życiu*, zaś 15,71% (33 osoby) nie zgodziło się z tą opinią. 18,57% (39 osób) badanych zaznaczyło odpowiedź *Ani tak, ani nie*. Dla porównania 73,58% (323 osoby spośród 439) studentów kierunków pedagogicznych zgodziło się z powyższym stwierdzeniem, zaś 11,62% (51 osób) nie zgodziło się. 14,81% (65 osób) nie miało jednoznacznego zdania w tej kwestii (wykres 4).

Wykres 4

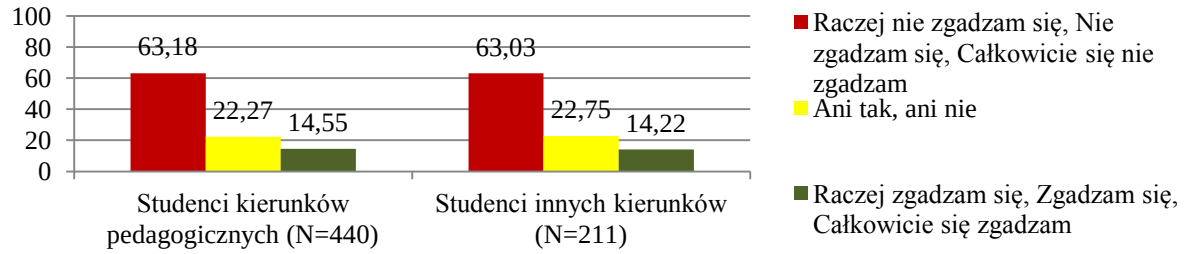
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Wiedza nauczana w szkole jest mało przydatna w dorosłym życiu”



Większość studentów (63,03%, 133 osoby spośród 211) kierunków innych niż pedagogiczne nie zgodziło się ze stwierdzeniem, że *W Polsce zawód nauczyciela cieszy się prestiżem społecznym*, zaś 14,22% (30 osób) zgodziło się z tym stwierdzeniem. 22,75% (48 osób) badanych nie miało zdania w tej kwestii. Wśród studentów kierunków pedagogicznych odsetek osób, które nie zgodziły z powyższym stwierdzeniem był niemal identyczny i wyniósł 63,18 (278 osób spośród 440), zaś odsetek osób, które zgodziły się wyniósł 14,55 (64 osoby). 22,27% (98 osób) badanych nie miało zdania w tej sprawie (wykres 5).

Wykres 5

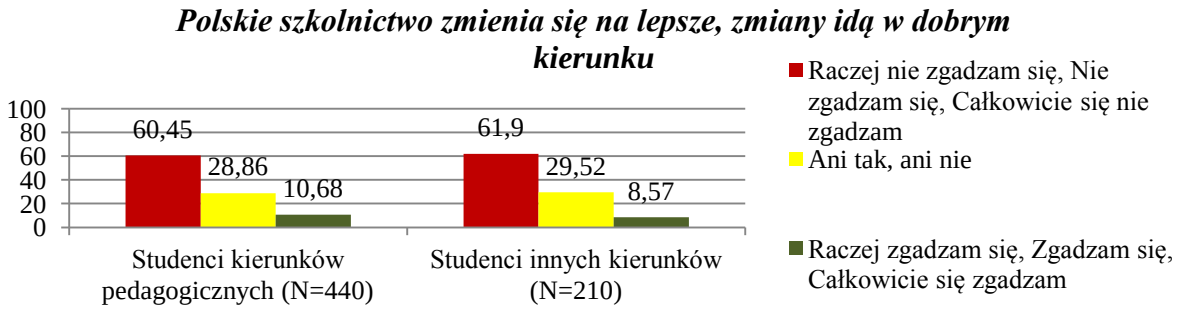
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „W Polsce zawód nauczyciela cieszy się prestiżem społecznym”



W grupie studentów innych kierunków studiów niż pedagogiczne większość osób (61,90%, 130 osób spośród 210) nie zgodziła się ze stwierdzeniem *Polskie szkolnictwo zmienia się na lepsze, zmiany idą w dobrym kierunku*, zaś 8,57% (18 osób) zgodziło się z tym stwierdzeniem. Blisko co trzecia osoba w tej grupie (29,52%, 62 osoby) nie miała zdania w tej kwestii. Dla porównania w grupie studentów kierunków pedagogicznych 60,45% (266 osób spośród 440) badanych osób nie zgodziło się z powyższym stwierdzeniem, zaś 10,68% (47 osób) zgodziło się. 28,86% (127 osób) nie miało zdania (wykres 6).

Wykres 6

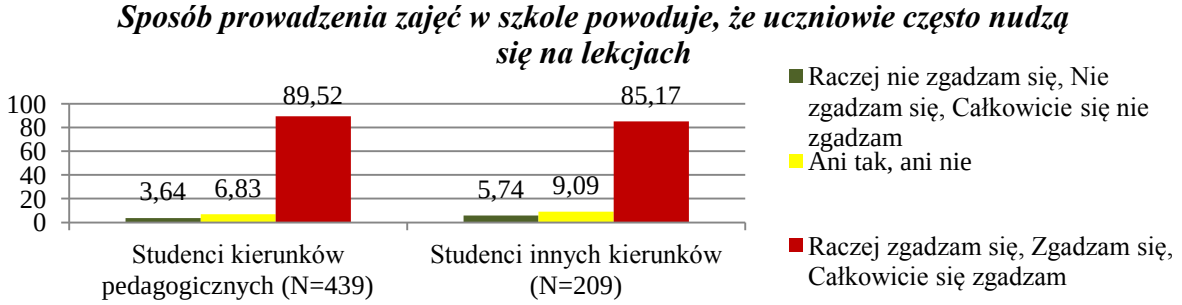
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Polskie szkolnictwo zmienia się na lepsze, zmiany idą w dobrym kierunku”



Ponad 8 na 10 badanych (85,17%, 178 osób spośród 209) studentów kierunków innych niż pedagogiczne zgodziło się z następującym stwierdzeniem: *Sposób prowadzenia zajęć w szkole powoduje, że uczniowie często nudzą się na lekcjach*. Blisko co dwudziesty badany (5,74%, 12 osób) nie zgodził się z tym stwierdzeniem, zaś 9,09% (19 osób) nie miało opinii na ten temat. Dla porównania blisko 9 na 10 badanych (89,52%, 393 osoby spośród 439) studentów kierunków pedagogicznych zgodziło się z powyższą opinią, zaś 3,64% (16 osób) nie zgodziło się z tą opinią. 6,83% (30 osób) nie miało zdania w tej kwestii (wykres 7).

Wykres 7

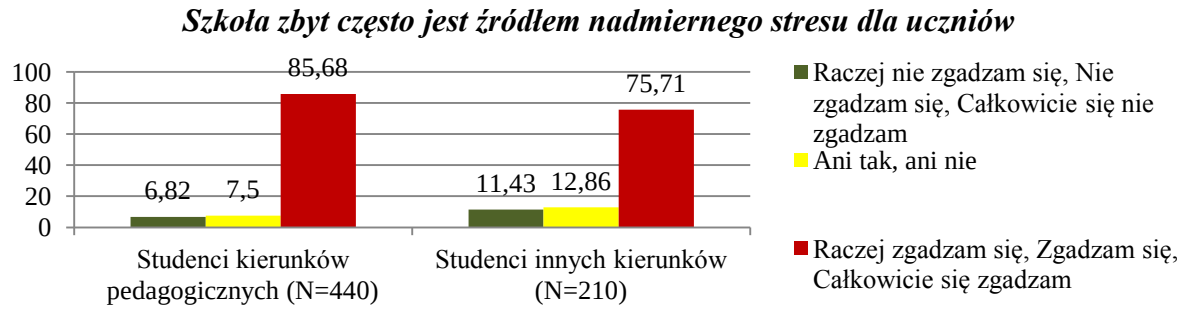
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Sposób prowadzenia zajęć w szkole powoduje, że uczniowie często nudzą się na lekcjach”



Blisko trzy czwarte (75,71%, 159 osób spośród 210) studentów kierunków innych niż pedagogiczne zgodziło się ze stwierdzeniem *Szkoła zbyt często jest źródłem nadmiernego stresu dla uczniów*, 11,43% (24 osoby) studentów nie zgodziło się, zaś 12,86% (27 osób) nie miało zdania w tej kwestii. Dla porównania 85,68% (377 osób spośród 440) studentów kierunków pedagogicznych zgodziło się z tą opinią, zaś 6,82% (30 osób) nie zgodziło. 7,50% (33 osoby) nie miało zdania w tej sprawie (wykres 8).

Wykres 8

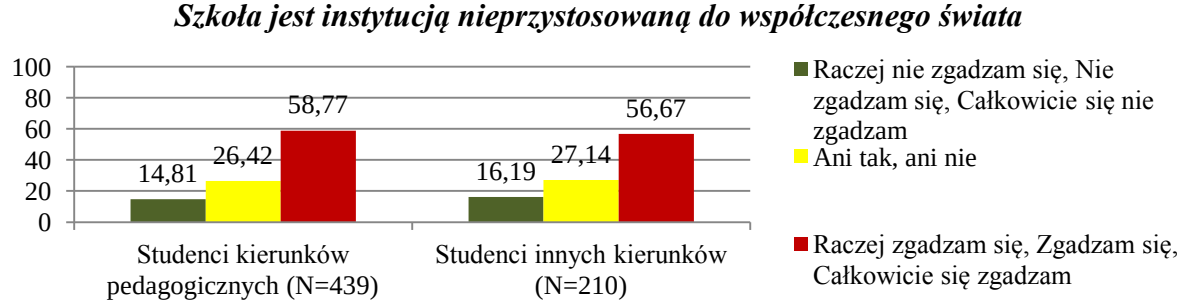
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Szkoła zbyt często jest źródłem nadmiernego stresu dla uczniów”



Większość studentów (56,67%, 119 osób spośród 210) innych kierunków niż pedagogiczne zgodziła się ze stwierdzeniem, że *Szkoła jest instytucją nieprzystosowaną do współczesnego świata*. 16,19% (34 osoby) nie zgodziło się z tą opinią. 27,14% (57 osób) nie miało zdania w tej kwestii. Również większość (58,77%, 258 osób spośród 439) studentów kierunków pedagogicznych zgodziła się z tą opinią, zaś 14,81% (65 osób) nie zgodziło się z tą opinią. 26,42% (116 osób) nie miało zdania (wykres 9).

Wykres 9

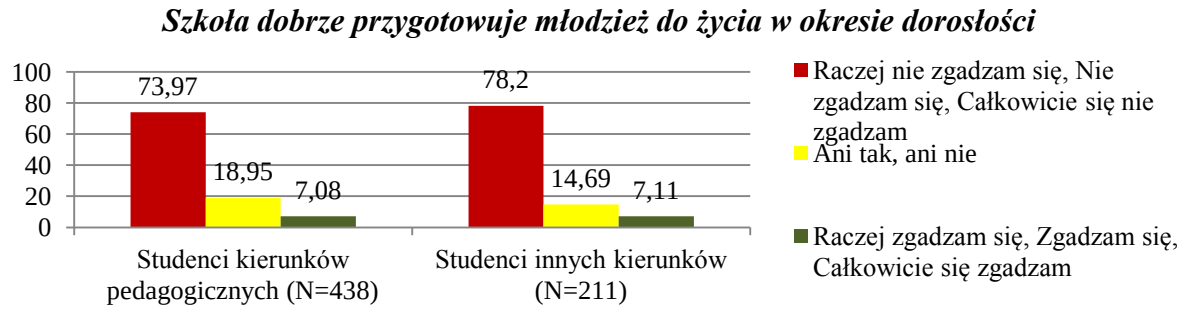
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Szkoła jest instytucją nieprzystosowaną do współczesnego świata”



Niemal 8 na 10 badanych studentów (78,20%, 165 osób spośród 211) innych kierunków niż pedagogiczne nie zgodziło się ze stwierdzeniem, że *Szkoła dobrze przygotowuje młodzież do życia w okresie dorosłości*. 7,11% (15 osób) zgodziło się z tym stwierdzeniem. 14,69% (31 osób) nie miało zdania. 73,97% (324 osoby spośród 438) studentów kierunków pedagogicznych nie zgodziło się z tym stwierdzeniem. 7,08% (31 osób) zgodziło się z tym stwierdzeniem. 18,95% (83 osoby) nie miało zdania w tej kwestii (wykres 10).

Wykres 10

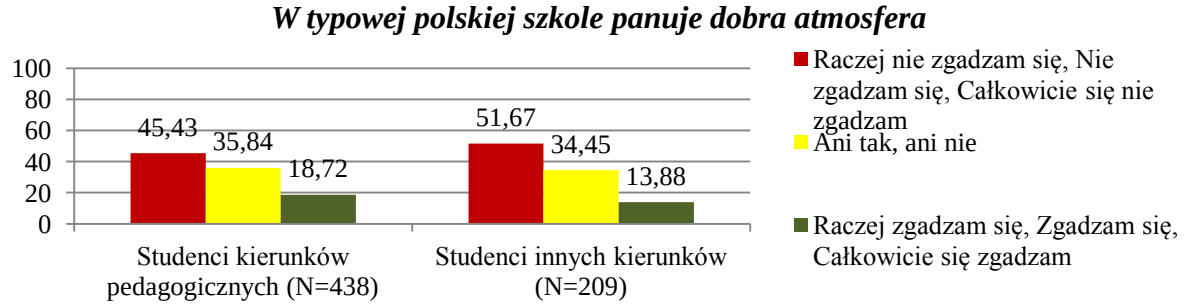
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Szkoła dobrze przygotowuje młodzież do życia w okresie dorosłości”



Nieco ponad połowa studentów (51,67%, 108 osób spośród 209) kierunków innych niż pedagogiczne nie zgodziło się ze stwierdzeniem, że *W typowej polskiej szkole panuje dobra atmosfera*. 13,88% (29 osób) zgodziło się z tym stwierdzeniem. 34,45% (72 osoby) nie miało zdania w tej kwestii. Mniej niż połowa (45,43%, 199 osób spośród 438) studentów kierunków pedagogicznych nie zgodziła się z powyższym stwierdzeniem. 18,72% (82 osoby) zgodziło się ze stwierdzeniem. 35,84% (157 osób) nie miało zdania w tej kwestii (wykres 11).

Wykres 11

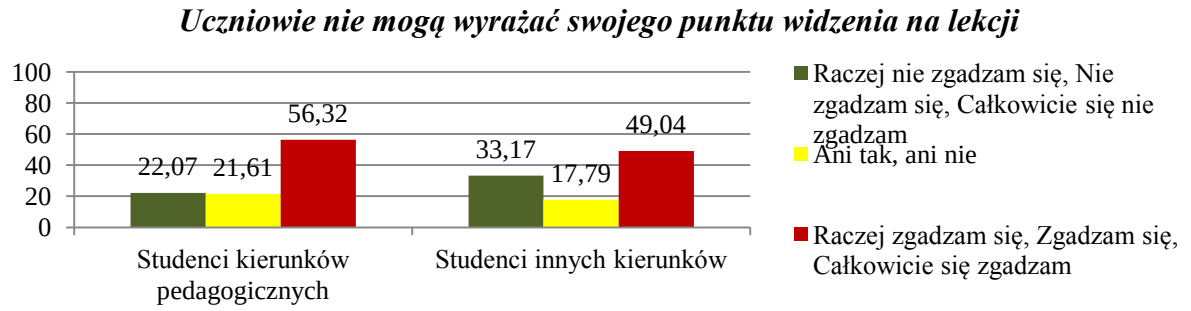
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „W typowej polskiej szkole panuje dobra atmosfera”



W grupie studentów kierunków innych niż pedagogiczne nieco mniej niż połowa badanych (49,04%, 102 osoby spośród 208) zgodziła się ze stwierdzeniem *Uczniowie nie mogą wyrażać swojego punktu widzenia na lekcji*. Jedna trzecia badanych (33,17%, 69 osób) nie zgodziła się z tym stwierdzeniem. 17,79% (37 osób) badanych nie miało jednoznacznej opinii w tej kwestii. Dla porównania ponad połowa (56,32%, 245 osób spośród 435) badanych studentów kierunków pedagogicznych zgodziło się z tym stwierdzeniem, 22,07% (96 osób) nie zgodziło się, zaś 21,61% (94 osoby) nie miało zdania w tej kwestii (wykres 12).

Wykres 12

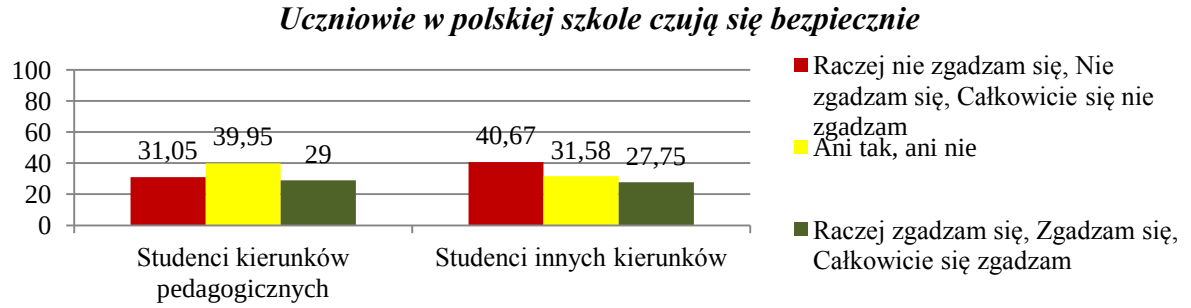
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Uczniowie nie mogą wyrażać swojego punktu widzenia na lekcji”



Blisko 4 na 10 studentów (40,67%, 85 osób spośród 209) kierunków innych niż pedagogiczne nie zgodziło się ze stwierdzeniem *Uczniowie w polskiej szkole czują się bezpiecznie*. Ponad jedna czwarta badanych (27,75%, 58 osób) zgodziła się z tym stwierdzeniem. Blisko jedna trzecia (31,58%, 66 osób) nie miała zdania w tej kwestii. Dla porównania 31,05% (136 osób spośród 438) studentów kierunków pedagogicznych nie zgodziło się z tym stwierdzeniem. 29,00% (127 osób) zgodziło się z tym stwierdzeniem. 39,95% (175 osób) nie miało zdania w tej kwestii (wykres 13).

Wykres 13

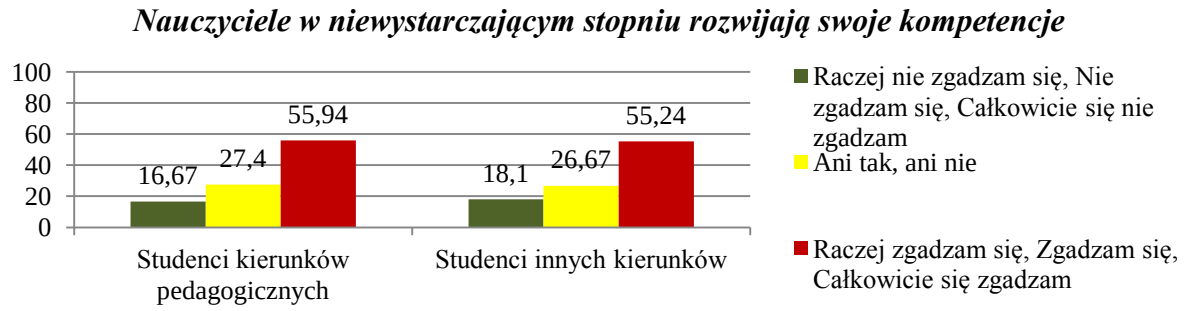
Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Uczniowie w polskiej szkole czują się bezpiecznie”



W grupie studentów kierunków innych niż pedagogiczne ponad połowa badanych (55,24%, 116 osób spośród 210) zgodziła się ze stwierdzeniem *Nauczyciele w niewystarczającym stopniu rozwijają swoje kompetencje*. 18,10% (38 osób) nie zgodziło się z tą opinią, zaś 26,67% (56 osób) zaznaczyło odpowiedź *Ani tak, ani nie*. W grupie studentów kierunków pedagogicznych ponad połowa badanych (55,94%, 245 osób spośród 438) zgodziła się z tą opinią, 16,67% (73 osoby) nie zgodziło się, zaś 27,40% (120 osób) nie miało zdania w tej kwestii (wykres 14).

Wykres 14

Porównanie dwóch grup studentów pod względem ustosunkowania się do stwierdzenia „Nauczyciele w niewystarczającym stopniu rozwijają swoje kompetencje”



4 WNIOSKI I DYSKUSJA

Studenci innych kierunków niż pedagogiczne w większości mieli – podobnie jak studenci kierunków pedagogicznych – negatywne opinie o polskim szkolnictwie. Respondenci ustosunkowali się do 14 stwierdzeń na temat edukacji w taki sposób, że w przypadku 12 z nich w większości zajęli stanowisko krytyczne względem szkolnictwa. Tylko w przypadku dwóch stwierdzeń (*Uczniowie nie mogą wyrażać swojego punktu widzenia na lekcji* i *Uczniowie w polskiej szkole czują się bezpiecznie*) liczba negatywnych odpowiedzi była mniejsza od 50%. Dla porównania w grupie studentów kierunków pedagogicznych również w przypadku 12 stwierdzeń większość badanych miała negatywną opinię. Liczba negatywnych odpowiedzi w tej grupie była mniejsza od 50% w przypadku stwierdzeń: *W typowej polskiej szkole panuje dobra atmosfera* oraz *Uczniowie w polskiej szkole czują się bezpiecznie*. Często opinie studentów z innych kierunków studiów niż pedagogiczne były jeszcze bardziej negatywne od studentów z kierunków pedagogika, pedagogika wczesnej edukacji i pedagogika specjalna. W związku z tym należy odrzucić przekonanie mówiące o tym, że studenci pedagogiki są bardziej krytyczni wobec istniejącego systemu edukacji od innych studentów. Wyniki te świadczą o tym, że nie tylko pedagodzy czy studenci pedagogiki dostrzegają potrzebę zmiany edukacyjnej. Przekonanie o tym, że szkolnictwo potrzebuje zmian jest prawdopodobnie dosyć szeroko rozpowszechnione w społeczeństwie.

Źródła

1. ATROSZKO, B., SENDAL, L., SWARRA, A. *Pedagogy students' opinions on education in Poland*. [w:] red. M. McGreevy, R. Rita, „CER Comparative European Research 2017“, Londyn: Sciemcee, 2017. s. 115–119. ISBN 978-0-9935191-4-7.
2. KLUS-STAŃSKA, D., *Bariery zmiany szkolnej kultury dydaktycznej*. [w:] „Praktyka tworzenia edukacyjnej wspólnoty”, red. nauk. A. Sajdak, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2005. ISBN 83-233-2019-5.
3. KLUS-STAŃSKA, D., *Dlaczego szkolna kultura dydaktyczna się nie zmienia*, „Studia Pedagogiczne” nr 14, 2011, s. 47. ISSN 0081–6795.
4. KWIECIŃSKI, Z., *Nieuniknione? Funkcje alfabetyzacji w dorosłości*, Toruń-Olsztyn: Wydawnictwo Uniwersytetu Mikołaja Kopernika, 2002, s. 115. ISBN 83-231-1449-8.
5. NALASKOWSKI, A., *Niepokój o szkołę*, Kraków: Oficyna Wydawnicza „Impuls”, 1995, s. 55. ISBN 83-855543-65-1.
6. PRZYSZCZYPKOWSKI, K., *Polityczność (w) edukacji*, Poznań: Wydawnictwo Naukowe UAM, 2012. ISBN 978-83-232-2489-1.

7. ROBINSON, K., wystąpienie pt. *Changing Education Paradigms* w Royal Society of Arts z 16 czerwca 2008 r. [dostęp 12.12.2017, https://www.ted.com/talks/ken_robinson _ changing_education _paradigms].

Informacja o finansowaniu publikacji
Publikacja została częściowo sfinansowana ze środków grantu Wydziału Nauk Społecznych Uniwersytetu Gdańskiego na projekty młodych naukowców i uczestników studiów doktoranckich na 2017 r. Nr grantu: 538-7300-B634-17.

Kontakt
Mgr Bartosz Atroszko
Uniwersytet Gdański
Jana Bażyńskiego 8, Gdańsk, Polska
Tel: 603 112 458
email: bartosz.atroszko@gmail.com

MOTIVACE UČITELŮ V PROJEKTECH ŠKOLY

TEACHER MOTIVATION IN SCHOOL PROJECTS

Lenka Vojáčková

Abstrakt

S oporou o koncept sebedeterminační teorie (Deci & Ryan, 2000) představujeme konkrétní faktory, které působí na motivaci učitelů při realizaci školních projektů, a to s ohledem na vnímanou autonomii nebo kontrolu. Zásadní vliv na autonomní motivaci vykazuje uspokojení základních psychologických potřeb (autonomie, kompetence, vztahy), naopak vnější podněty naznačují spojitost s kontrolovanými typy motivace. Výsledky poukazují také na důležité faktory motivace, které podmiňují účast na školních projektech, a tím je percepce osobního významu projektu a smysluplnosti projektu.

Klíčová slova: *motivace, sebedeterminace, učitel, projekt, škola*

Abstract

With the support of the concept of Self-determination theory (Deci & Ryan, 2000), we present specific factors that motivate teachers to implement school projects, taking into account perceived autonomy or control. The fundamental influence on autonomous motivation shows satisfaction of basic psychological needs (autonomy, competence, relatedness), while external incentives show the connection with controlled types of motivation. The results also highlight the other important factors that make participation in school projects conditional on the perception of the personal importance of the project and the meaningfulness of the project.

Key words: *motivation, self-determination, teacher, project, school*

1 TEORETICKÁ VÝCHODISKA - MOTIVACE A PROJEKTY

Cílem školních projektů je zlepšovat kvalitu učení i vyučování a směřovat k rozvoji škol. To však není možné bez motivovaných učitelů, kteří často nad rámec své práce iniciují nebo realizují školní projekty. Význam motivace učitelů při účasti na školních projektech zdůrazňují němečtí výzkumníci, např. Jäger (2004), Gräsel a Schellenbach-Zell (2010), kteří mj. potvrzují, že motivace učitelů je důležitým faktorem ovlivňujícím šíření inovací. Nabízí se otázka, která v daném kontextu vzniká: Co motivuje učitele podílet se na školních projektech? V příspěvku identifikujeme faktory, které podporují právě motivaci učitelů. Obecně motivace znamená směřovat své chování na cíl, který je pozitivně hodnocen (Rheinberg, 2004). Tato definice zahrnuje různé aspekty motivace: hodnocení a výběr stavu cíle, stejně jako aktivaci chování k tomuto cílovému stavu. Při výzkumu rozvoje škol se tyto úvahy ukazují jako významné, neboť jestliže k němu má dojít prostřednictvím nových projektů, jsou to právě učitelé, kteří se na základě své motivace rozhodují, zda a jak se na projektech budou podílet. Termínem projekt máme na mysli ucelený komplex aktivit, které daná škola realizuje za účelem zisku finančních prostředků, které jsou využívány na rozvojové aktivity školy (např. další vzdělávání učitelů, kvalita výuky apod.).

1.1 Teorie sebedeterminace

Za účelem vysvětlení motivace učitelů využíváme teorii sebedeterminace (Self-determination theory), kterou poprvé definovali, dále rozpracovávají a výzkumně ověřují američtí psychologové E. L. Deci a R. M. Ryan. Sebedeterminační teorie zastává názor, že pro

předpověď důležitých životních výsledků je důležitější znát typ nebo kvalitu motivace člověka, než celkovou sílu motivace (Deci & Ryan, 2008). Na základě této teorie rozlišujeme mezi různými typy motivací, které závisí na vnímané autonomii. Zjednodušeně se užívá členění na vnitřní a vnější motivaci, Deci a Ryan toto rozdělení posunují dále a hovoří primárně o intrinsické a extrinsické motivaci, motivaci autonomní a kontrolované. Vnější, často uváděná extrinsická motivace je spojena s dosahováním cílů mimo oblast samotné pracovní činnosti a je provázenou vysokým stupněm vnímání kontroly. Mezi nejsilnější extrinsické motivy patří mzda, hmotné odměny, zaměstnanecké výhody, jistota, status. Vnitřní, intrinsická motivace, kterou provází vysoká míra autonomie je spojena s uspokojováním potřeb prací samotnou. Mezi intrinsické motivy patří seberealizace, pocit z dobře vykonané práce, pocit moci, osobnostní růst, radost.

Základním předpokladem uvedené teorie je fakt, že člověk má tendenci uspokojovat tři základní psychologické potřeby - potřebu kompetence (competence), potřebu vztahu s druhými lidmi (relatedness) a potřebu autonomie (autonomy). Psychicky i fyzicky zdravý člověk směřuje vědomě či nevědomě směrem k naplnění těchto potřeb, a pokud jsou alespoň přiměřeně naplňovány, vedou k pocitu subjektivní pohody a spokojenosti, ke zvýšení autonomní motivace a směřují k integraci osobnosti (Deci, Ryan, 2000). Uspokojování těchto potřeb však není samozřejmostí, záleží na sociálním prostředí, ve kterém se nacházíme, které nám v uspokojování může buď napomáhat, nebo ho komplikovat. Základními potřebami jsou proto, že jejich uspokojení je nezbytné pro osobní růst a životní pohodu (*wellbeing*).

První potřeba autonomie je tendence člověka vnímat se jako původce vlastní činnosti a řídit své jednání podle svých zájmů a hodnot nebo vnějších motivů, které jsou s nimi v souladu. (Deci, Ryan, 2000). Autonomní chování je takové, které se děje nezávisle na sociálním prostředí, pouze s vnitřní podporou jedince samého. Činnost, pro kterou není možnost volby, je řízená, resp. kontrolovaná – to je opakem autonomie. Druhá základní psychologická potřeba kompetence přináší pocit efektivity v interakcích se svým sociálním prostředím a pocit, že můžeme předvést a uplatnit svoje schopnosti. Potřeba kompetence povzbuzuje jedince k vyhledávání přiměřených výzev, které odpovídají jeho možnostem a které rozvíjí jeho potenciál skrze činnosti. Třetí základní psychologická potřeba vztahů s lidmi souvisí s potřebou být přijímán ve svém sociálním prostředí, vytvářet s prostředím bezpečné a pozitivní vztahy a být součástí společenství.

Vztáhneme-li výše uvedené teorie o uspokojování potřeb k projektům, které školy realizují a prostřednictvím nichž dochází k rozvoji učitelů, žáků a škol samotných, můžeme zohlednit např. právě strukturu a potenciál projektu ve škole, který může plnit potřeby učitelů, a tím jim usnadnit práci. To může zvýšit pravděpodobnost, že se učitelé budou dlouhodobě zavazovat k realizaci projektů a aktivně se podílet na rozvoji školy. Při realizaci projektů se mohou učitelé chovat autonomně, mohou nést pocit odpovědnosti za svoje úkoly, vnímat, že existuje prostor pro přijetí vlastních postupů práce nebo mohou zaměřit svoji práci dle svých individuálních potřeb. Kromě těchto způsobů podpůrné autonomie mohou projekty například poskytovat i konkrétní prostor, v němž je umožněna zpětná vazba s ohledem na potřeby kompetence. Projekty také podporují spolupráci mezi učiteli ve formě projektových týmů, často přesahující hranici jedné školy, a slouží tak ke kultivaci vztahů. Některé příklady toho, proč se učitelé účastní školních inovačních projektů, zahrnují rozvoj jejich vlastní osobnosti nebo příležitost se dále vzdělávat. To patří k motivaci autonomní. Naopak kontrolovaná motivace představuje např. situace, kdy učitelé pracují na školních inovačních projektech, protože to cítí jako povinnost nebo se to od nich z nějakého důvodu očekává.

1.2 Osobní význam, smysluplnost a další motivační faktory

Vedle základních psychologických potřeb uvažujeme ve výzkumu dále o proměnné osobního významu projektu, který je silně spjat s vnitřní motivací a autonomní formou chování, a to v souladu s pedagogicko-psychologickou teorií zájmu mezi osobou a objektem (Interessentheorie, Prenzel, Krapp, & Schiefele, 1986). V rámci naší studie je nejdůležitějším aspektem této teorie fakt, že pokud osoba (učitel) připisuje velký osobní význam danému předmětu (projekt), má to vliv na posílení jeho vnitřní (intrinsické) motivace. Zájem přitom může být dlouhodobé nebo krátkodobé povahy, což se jeví jako důležité s ohledem na projektovou práci učitelů.

Účast na školních projektech, kterými se zabýváme, je v principu dobrovolná. Motivaci, proč se do projektů zapojovat, vnímáme primárně jako autonomní nebo kontrolovanou, a to ve vazbě na uspokojování základních potřeb. Motivační efekt však mohou mít ještě další faktory, které nám do procesu vstupují. Schellenbach-Zell (2009) rozlišuje tři typy podnětů (incentiv), které mohou ovlivňovat motivaci učitelů při účasti na školních projektech. V souladu s Rheinbergovým modelem motivace (Advanced Cognitive Model of Motivation, Heckhausen, Rheinberg, 1980) ukazujeme, že konkrétní důsledky každé akce mají podněcující (incentivní) charakter, což má vliv na skutečnost, zda k dané akci skutečně dojde. Je tedy na místě si klást otázku, jaký druh incentiv podporuje motivaci k zapojení učitelů do projektů. Schellenbach-Zell (2009) rozlišuje v souladu s výše uvedenými teoriemi mezi různými typy podnětů. Jsou to (1) materiální incentivy jako např. odměny nebo volné hodiny pro učitele, (2) sociální incentivy jako je uznání kolegů nebo ředitele a (3) projektově specifické incentivy, např. dobře navržený projekt nebo strukturované aktivity vedoucí k cíli.

Předpokládáme, že kromě výše uvedených základních potřeb a vnějších podnětů, může mít motivační efekt ještě smysluplnost práce samotné. Ta je tvořena komplexem dějů, které ve vzájemné interakci definují pro jedince aktuálně vnímaný smysl a význam práce. Lidé, kteří považující svou práci za smysluplnou z individuálního či společenského hlediska, jí současně přičítají větší význam, lépe zvládají zátěž a stres, mají lepší fyzické zdraví, zažívají silnější celkový pocit pohody a vykazují také vyšší pracovní spokojenost (Paulik, 2014, 2017). Smysluplnost práce je podle Armstronga (2012) významně ovlivněna mimo přímé procesy vnímání koherence a smyslu třemi oblastmi. První je organizační kultura organizace, ve které jedinec působí. Ta je definována jako specifický vzorec hodnot, norem, přesvědčení, postojů a předpokladů, které nejsou často jasně vyjádřené, ale ovlivňují způsob, jakým se jedinci v organizaci chovají a jak je činnost prováděna. Druhou oblastí je samotný design práce (šířeji design organizace). Ten obsahuje několik proměnných, jako míra pracovní zátěže, rozsah práce (množství činností, které jedinec vykonává), hloubka práce (míra uvažování ohledně potřebných procesů a výsledků práce), pracovní vztahy s ostatními, flexibilita práce, sdílení práce a další. Poslední oblast představuje jedinec/pracovník sám, konkrétně jeho osobnost, inteligence, optimismus, postoje atd. Z Armstrongova pojetí vycházíme při operacionalizaci pojmu smysluplnost práce.

2 METODOLOGIE

Cílem dané části kvantitativního výzkumu bylo zjistit, jaké faktory podporují motivaci učitelů při práci na školních projektech a jak silný efekt tyto faktory mají ve vztahu k vnitřní (intrinsické), autonomní a kontrolované motivaci. Výzkum ukazuje různé teoretické faktory, které ovlivňují motivaci. Je to uspokojení základních psychologických potřeb a proměnná osobního významu vycházející ze sebedeterminační teorie; různé typy vnějších podnětů v souladu s rozšířeným modelem motivace; a smysluplnost práce.

2.1 Základní soubor

Prezentujeme výsledky souboru učitelů působících na středních školách v Jihomoravském kraji. Jedná se o etapu výzkumu disertačního projektu sledujícího učení a motivaci učitelů ve vazbě na fenomén školních projektů. Tento soubor tvořilo celkem 121 učitelů. Ředitelům středních škol byla poskytnuta elektronická verze dotazníku s cílem jeho distribuce těm učitelům, kteří se ve škole podílí na realizaci školních projektů. Z hlediska typu školy převažovala v souboru střední odborná škola (55,4%), za ní pak gymnázium (40,5%) a následně střední odborné učiliště (12,4%). V celém souboru bylo 58,7% žen a 41,3 % mužů. S ohledem na délku své pedagogické praxe uvedlo 61,2% respondentů praxi delší než 15 let. Ve vazbě na počet hodin strávených na projektu napsalo 66,1% respondentů, že prací na školních projektech tráví méně než 5 hodin týdně, 26,4% se pohybuje mezi 5 a 15 hodinami týdně. V závislosti na charakteru práce při realizaci školních projektů uvedlo 76% respondentů, že pracuje jako učitel/ka na realizaci odborných aktivit, 22,3% působí ve vedení školy a 13,2% se zabývá administrativními záležitostmi v projektech.

2.2 Dotazník

Dotazník pro učitele byl zkonstruován jako kompilát tří dotazníků upravených pro potřeby daného výzkumu.

- The Self-Regulation Questionnaires (SRQ) - Teorie sebedeterminace (Deci, Ryan, 2006)
  - Intrinsic Motivation Inventory (IMI): Vnitřní motivace, osobní význam
  - Basic Need satisfaction at Work: Uspokojení základních psychologických potřeb
  - Learning Self-Regulation Questionnaire: rozlišení mezi autonomní a kontrolovanou motivací
- The Work and Meaning Inventory (WAMI) - Smysluplnost práce (Steger, M. F., 2012)
- Vnější podmínky ovlivňující motivaci (Schellenbach-Zell, J., 2009)

Učitelé odpovídali na otázky prostřednictvím škály souhlasím - spíše souhlasím – nevím - spíše nesouhlasím - nesouhlasím. Škála vnitřní (intrinsické motivace) odpovídá radosti a potěšení z práce na projektech. Konstrukt osobního významu popisuje význam projektu pro učitele. Škály autonomní a kontrolované motivace zahrnují otázky týkající se vnitřních a vnějších zdrojů motivace. Tři škály základních psychologických potřeb ukazují míru, jak se učitelé cítí podporováni v jejich autonomii a kompetenci, ale i jak vnímají vztahy s kolegy. Dále jsme se ptali na vnější podmínky ovlivňující motivaci, konkrétně materiální podmínky (volné hodiny, finanční ohodnocení), sociální podmínky (uznání od kolegů nebo žáků) a podmínky specificky-projektové (promyšlenost a struktura projektu). Konečně posledním faktorem byla smysluplnost práce, jejíž škála ukazuje míru pozitivního významu pro samotné učitele. Většina škál vykazuje reliabilitu vyšší než 0,7, pouze ve dvou případech je nižší, tento fakt zohledňujeme při interpretaci.

3 VÝSLEDKY

V tabulce 1 jsou uvedeny průměrné hodnoty odpovědí vyjádřené na příslušných škálách. Tak lze získat přehled o tom, jak respondenti v průměru odpovídali (tj. jaký bod na škále nejčastěji volili). Pro proměnné se jedná o průměr na škále -2 až 2. U posledních 3 podmínek byly hodnoty vypočteny jako počet uvedených odpovědí v této oblasti. Obecně mohla tato proměnná nabývat hodnot 0, 1, 2, 3.

Tabulka 1: Popisné charakteristiky výsledků

Proměnná	Průměr	Sm. odch.	Cronbachovo Alfa	Příklad položky v dotazníku (počet)
Autonomie	0,66	0,71	0,60	*Na školních projektech pracuji dobrovolně. (5)*
Kompetence	0,92	0,75	0,73	*Mezi kolegy, s nimiž v projektech spolupracuji, nedostávám moc často příležitost ukázat, co umím. (4)*
Vztahy	0,87	0,80	0,81	*Když se mi něco náhodou při práci na projektu nedaří nebo nestíhám, svým kolegům v týmu si mohu vždy postěžovat. (4)*
Osobní význam	0,50	0,86	0,85	*Snažím se nové školní projekty sám/a iniciovat. (5)*
Vnímání smysluplnosti	0,42	0,91	0,91	*Práce na projektech mi pomáhá vidět smysl v učitelské profesi. (9)*
Intrinsická motivace	0,44	0,80	0,76	*Když pracuji na projektu, který realizuje naše škola, dělá mi to radost. (6)*
Autonomní motivace	-0,26	0,61	0,76	*Pracuji/spolupracuji na školních projektech, protože bych chtěl/a pro svoje žáky inovovat a zatraktivnit výuku. (7)*
Kontrolovaná motivace	-0,42	0,48	0,60	*Pracuji/spolupracuji na školních projektech, protože to očekává vedení školy. (7)*
materiální podmínky	0,34	0,29	*	*V práci na školních projektech bych se angažoval/a více, pokud bych dostal finančně zajímavé ohodnocení, díky němuž by se mi práce na projektech více vyplatila. (3)*
sociální podmínky	0,21	0,26	*	*V práci na školních projektech bych se angažoval/a více, pokud by pro mělo vedení školy uznání a ocenilo moje nasazení. (3)*
projektově-specifické podmínky	0,29	0,24	*	*V práci na školních projektech bych se angažoval/a více, pokud by byl plán projektu vždy promyšlený do větších detailů. (3)*

* K těmto proměnným neuvádíme Cronbachovo Alpha (jejich položky nebyly měřeny na škále).

Za účelem odpovědi na otázku, jaké faktory jsou významné pro motivaci učitelů při realizaci školních projektů, byly testovány závislosti mezi výše uvedenými proměnnými, k čemuž byl použit Spearmanův koeficient pořadové korelace, vhodný pro kvantifikaci závislostí dvou ordinálních proměnných.

Tabulka 2 – Korelace proměnných

Proměnná	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
1 autonomie	-	-	-	-	-	-	-	-	-	-	-
2 kompetence	0,51	-	-	-	-	-	-	-	-	-	-
3 vztahy	0,32	0,42	-	-	-	-	-	-	-	-	-
4 osobní význam	0,47	0,49	0,26	-	-	-	-	-	-	-	-
5 materiální podmínky	0,28	0,18	-0,01	-0,17	-	-	-	-	-	-	-
6 sociální	-0,15	-0,15	-0,15	0,11	0,24	-	-	-	-	-	-

podmínky											
7 projektově-specifické p.	-0,05	-0,08	-0,03	-0,07	0,06	0,20	-	-	-	-	-
8 vnímání smysluplnosti	0,51	0,59	0,36	0,73	-0,13	-0,02	-0,21	-	-	-	-
9 autonomní motivace	0,30	0,44	0,16	0,50	0,15	0,17	0,06	0,53	-	-	-
10 kontrolovaná motivace	-0,20	0,13	0,14	-0,05	0,25	0,21	0,39	-0,08	0,15	-	-
11 intrinsická motivace	0,41	0,45	0,30	0,71	-0,17	0,12	-0,10	0,69	0,45	-0,11	-

*červeně označené korelace jsou statisticky významné na hladině významnosti 0,05

Z tabulky 2 je patrné, že uspokojení základních psychologických potřeb autonomie a kompetence má vliv na autonomní motivaci učitelů při práci na projektech. Učitelé, kteří jsou spokojenější v obou oblastech (více u proměnné kompetence) jsou do určité míry také více autonomně motivovaní. Naopak u potřeby vztahů nebyla přímá pořadová závislost prokázána. Statisticky významná korelace je patrná u faktoru osobního významu. Zde byla nalezena silná korelace s hodnotou 0,71 u intrinsické motivace. Učitelé, pro které má práce na projektech silný osobní význam, mají vysokou míru intrinsické motivace a naopak. Faktor osobního významu má také statisticky významný vliv na autonomní motivaci. Naopak pro kontrolovanou motivaci nebyla závislost prokázána.

V souladu s teoretickými předpoklady byla nalezena statisticky významná přímá pořadová závislost mezi vnějšími podmínkami a kontrolovanou motivací. Hodnoty korelačních koeficientů byly kladné a poměrně nízké. V případě závislosti kontrolované motivace na materiálních a sociálních podmínkách lze hovořit o slabé závislosti (R=0,25, resp. 0,21), v případě závislosti kontrolované motivace na projektově-specifických podmínkách lze hovořit o slabší až středně silné závislosti (R=0,38). Pro všechny 3 typy podmínek tedy bylo prokázáno, že čím vyšší je motivace respondenta v rámci těchto podmínek, tím vyšší je míra kontrolované motivace. Výsledky také potvrzují, že tyto podmínky nemají zásadní vliv na autonomní motivaci učitelů. Což je v souladu s teorií sebedeterminace.

Statisticky významná korelace vyšla u proměnné vnímání smysluplnosti projektů a autonomní motivace. Učitelé**,** kteří vidí ve školních projektech větší smysl, mají často vyšší míru autonomní motivace, a naopak, respondenti, kteří v inovačních projektech příliš smysl nevidí, mají často nižší míru autonomní motivace. U kontrolované motivace nebyla na rozdíl od autonomní motivace souvislost s vnímáním smysluplnosti prokázána.

4 DISKUSE A ZÁVĚR

Teorie sebedeterminace předpokládá, že existují tři základní psychologické potřeby (autonomie, kompetence a související vztahy), které mají pozitivní vliv na autonomní motivaci. Zásadní roli přitom hrají první dvě potřeby autonomie a kompetence, což potvrzují i výsledky studie, které ukázaly, že vysoká míra autonomie a kompetence pozitivně ovlivňuje tento typ motivace. Naopak nekoreluje s motivací kontrolovanou, což je také v souladu s danou teorií. Význam uspokojení výše zmíněných základních potřeb podporuje řada výzkumů: Quinn (1997) ukazuje, že rozhodovací svoboda ve škole je spojena s angažovaností učitelů. Prožívání autonomie se také jeví jako nezbytné pro účast učitelů na realizaci projektů (Schellenbach-Zell, 2009). Auhagen (1999) dokazuje, že možnost užívat vlastních kompetencí vede k tomu, že lidé přebírají odpovědnost za obsah práce a jsou si pak i více

jisti. Chambers a Callaway (2008) poukazují na to, že přesvědčení učitelů o jejich vlastních kompetencích má vliv na to, jak zvládnou nové úkoly, v našem případě projekty školy. Právě učitelé, kteří se výrazně angažují při rozvojových aktivitách školy, se vyznačují vysokou úrovní kompetencí při jejich řešení. Vztahy jako třetí základní psychologická potřeba se vyznačuje začleněním učitele do skupiny (projektového týmu) a může působit jako motivátor pro možnost sdílet názory s ostatními a možnost se projevit v týmu.

Teorie zájmu (Krapp, 1986) uvádí, že základním faktorem intrinsické motivace je zájem, spojený s vnímáním osobního významu dané činnosti pro jedince. Výsledky, získané v této studii, jsou schopny tento předpoklad potvrdit. Faktor osobního významu se ukazuje jako nejdůležitější prediktor pro intrinsickou motivaci, nikoli však pro motivaci kontrolovanou.

Vedle proměnných diskutovaných výše jsme do teoretického modelu uvedli různé vnější podněty jako prediktory pro oba typy motivace. Ani vyhlídky na získání dalších finančních prostředků (materiální podněty), ani větší uznání od kolegů (sociální podněty) nebo snazší porozumění plánu projektu (projektově-specifické podněty) se však neukázaly jako vhodné k posílení vnitřní motivace učitelů pracujících na projektech školy. To je také v souladu se sebedeterminační teorií, která předpokládá, že tento typ motivace nemusí být posilován vnějšími podněty. Naopak říká, že kontrolovaná motivace může být udržována, pokud je neustále upevňována vhodnými vnějšími vlivy. Námi navržené podněty se zdají být vhodnými podmínkami pro posilování kontrolované motivace. Tam, kde jsou korelace nízké, je nutné počítat i s vlivem dalších proměnných, které jsme v našem výzkumu nesledovali.

Motivace učitelů, která pramení z autonomních pohnutek jedince nebo taková, která je založena na radosti a zájmu, vykazuje prvky dlouhodobosti a je dle teorie sebedeterminace nejefektivnější. V případě, že je chování lidí, v našem případě učitelů, motivováno autonomně, pociťují vlastní vůli k daným aktivitám, které často podporují i učení a vlastní profesní růst. Toto tvrzení se jeví jako důležité ve vazbě na zkoumání práce učitelů na školních projektech, které jsou často dlouhodobého charakteru. Má tedy smysl rozlišovat mezi autonomní a kontrolovanou motivací. Výsledky potvrdily teoretická očekávání, že první typ motivace nemusí být posilován žádnými podněty z vnější. Aby byli učitelé motivováni projekty realizovat, a tím podpořili kvalitu výuky, rozvíjeli sebe sama prostřednictvím dalšího vzdělávání a přispívali k rozvoji a kvalitě školy samotné, je užitečné podporovat právě typ motivace autonomní, potažmo vnitřní. K tomu je žádoucí poskytnout učitelům informace týkající se širších vazeb projektu, aby si sami byli vědomi jeho důležitosti a smysluplnosti, v ideálním případě učitele do projektů zapojovat již v přípravě, aby měli vliv a možnost samostatného rozhodování a autonomního chování s ohledem na řešení aktivit projektu. Jako důležité se jeví také poskytovat přátelské kooperativní klima, které není založeno na tlaku ze strany vedení školy. Vztahy v projektovém týmu (skupině) mohou sehrát také roli při posilování dlouhodobé motivace učitelů. Výsledky, které se týkají kontrolované motivace, nás mohou vést k úvaze, že finanční prostředky, příkaz ředitele nebo jiná materiální či sociální podpora ovlivní, budou mít sice na učitele vliv, nikoli však z dlouhodobého hlediska.

Ve vazbě na omezení při interpretaci výsledků poukazujeme na skutečnost, že jsme pracovali s údaji, které jsme získali od učitelů, kteří byli nebo jsou nějakým způsobem zapojeni v projektech. Nejsme tedy schopni poskytnout informace v této problematice o motivaci učitelů, kteří se školních projektů neúčastní s ohledem na to, co jim v tom např. zabraňuje.

Použitá literatura

1. ARMSTRONG, M. *Armstrong'shandbook of human resource management practice*. 12th ed. London: Kogan Page, 2012.
2. AUHAGEN, A. E. *Die Realität der Verantwortung*. Göttingen: Hogrefe, 1999.
3. DECI, E. L., RYAN, R. M. *Die Selbstbestimmungstheorie der Motivation und ihre Bedeutung für die Pädagogik*. Zeitschrift für Pädagogik, 39(2), 1993. p. 223–238.
4. DECI, E. L., RYAN, R. M. *The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior*. Psychological Inquiry, 11(4), 2000. p. 227–268.
5. DECI, E. L., RYAN, R. M., GAGNÉ, M., LEONE, D., USUNOV, J., & KORNAZHEVA, B. P. *Need satisfaction, motivation, and well-being in the work organizations for a former eastern bloc country*. Personality and Social Psychology Bulletin, 27(8), 2001. p. 930– 952.
6. DECI, E. L., RYAN, R. M. *Basic psychological needs scale*. 2006a. http://selfdeterminationtheory.org/
7. DECI, E. L., RYAN, R. M. *Intrinsic motivation inventory*. 2006b. http://selfdeterminationtheory.org/
8. DECI, E. L., RYAN, R. M. *The self-regulation questionnaires*. 2006c. http://selfdeterminationtheory.org/
9. HECKHAUSEN, H., & RHEINBERG, F. *Lernmotivation im Unterricht, erneut betrachtet.* Unterrichtswissenschaft, 8, 1980. p 7–47.
10. CHAMBERS. B. & CALLAWAY, P. *High and low implementers of content literacy instruction*: *Portraits of teacher efficacy*. Teaching and Teacher Education 24(7), 2008. p. 1739-1750
11. JÄGER, M. (2004). *Transfer in Schulentwicklungsprojekten*. Wiesbaden: Verlag für Sozialwissenschaften, 2004.
12. PAULIK, K. *Psychologické souvislosti pracovní smysluplnosti*. Psychologie a její kontexty 5 (2), 2014, str. 3–15.
13. PAULIK, K. Některé psychologické souvislosti hodnocení smyslu vlastní práce učiteli. Studia paedagogica, vol. 22, n. 3, 2017.
14. QUINN, P. (1997). Teacherprofessionalization and teacher commitment: A multilevel analysis. *National Center for Education Statistics* 97 (069). Washington, DC: U.S. Department of Education, 1997.
15. RHEINBERG, F. *Motivation*. Stuttgart: W. Kohlhammer Verlag, 2004.
16. SCHELLENBACH-ZELL, J. *Motivation und Volition von Lehrkräften in Schulinnovationsprojekten*, 2009**.** [http://nbn-resolving.de/urn/resolver.pl?urn=urn%3Anbn%3Ade%3Ahbz%3A468-20090756]
17. SCHELLENBACH-ZELL, J., GRÄSEL, C. *Teacher motivation for participating in school innovations – supporting factors.* Journal for Educational Research Online. Journal für Bildungsforschung Online. Volume 2, 2010. p. 34–54.
18. STEGER, M. F., DIK, B. J., & DUFFY, R. D. (2012). *Measuring meaningful work: The Work and Meaning Inventory* (WAMI). Journal of Career Assessment, 20, 2012. p. 322– 337.

Kontaktní údaje

Mgr. Lenka Vojáčková
FF MU Brno
Arna Nováka 1, 602 00 Brno
email: l.vojackova@centrum.cz
tel: 777 188 912

HISTORICKÉ PROMĚNY PARADIGMATU HOSPODÁŘSKÉ LINGVISTIKY

PARADIGM SHIFTING IN LINGUISTICS FOR BUSINESS PURPOSES

Tomislav Potocký

Abstrakt

V první kapitole je shrnut myšlenkový odkaz historické a strukturálně-funkční linie německé hospodářské lingvistiky a jejího inspiračního zdroje v podobě Pražského lingvistického kroužku. V druhé kapitole je připomenuta proměna jazykovědného paradigmatu v 70. letech 20. stol., která do centra zkoumání vynesla sociální hlediska a aspekt jazykové pragmatiky.

Klíčová slova: *hospodářská lingvistika, komunikativně-pragmatický obrat, Pražský lingvistický kroužek*

Abstract

An inspiring legacy of historical and structural-functional approach for establishing linguistics for business purposes is dealt with in the first chapter. Subsequently, an attempt is being made to examine the impact of the communicative and pragmatic turn on this field of applied linguistics with special regard to German language.

Key words: *Communicative and Pragmatic Turn, Linguistics for Business Purposes, Prague Linguistic Circle*

1 ÚVOD

Pojem hospodářský (ekonomický) jazyk, ve sledovaném případě německý, tj. Wirtschaftsdeutsch, představuje díky svému vágnímu vymezení nesnadno uchopitelnou kategorizační entitu, nejen v rámci systematiky odborného jazyka, ale také s ohledem na vymezení jazykového materiálu pro sylaby jazykových kurzů. Na plurální sémantický charakter pojmu Wirtschaftsdeutsch poukazují označení, jakých se mu v posledních zhruba patnácti letech od německých lingvistů dostalo: „*konglomerát*“ [Hundt, 1995, s. 11], „*komplex*“ [Fluck, 1996, s. 16], resp. „*souhrnný pojem*“ [Buhlmann, Fearns, 2000, s. 306].

Horizontální rozprostřenost pojmu Wirtschaftsdeutsch vyplývá z toho, že se vztahuje jak k teoretickým disciplínám národohospodářského a podnikohospodářského okruhu, tak k nejrůznějším praktickým profesním profilacím. Rovněž vertikální ukotvení tohoto pojmu v systematice jazykových vrstev je ztíženo faktem, že pod něj v běžném chápání spadají stejně tak odborné jazyky vědecko-teoretického charakteru, jako komplex profesních jazyků hospodářské sféry a zároveň oborově podmíněný hovorový jazyk

Na absenci žádoucího teoretického fundamentu, jenž byl by měl být oporou popisného lingvistického aparátu při výkladu hospodářského jazyka, poukazuje M. Hundt, když konstatuje, že *„jsou doposud reflektovány pouze jeho dílčí aspekty, aniž by byl učiněn pokus daný předmět zkoumání traktovat v širších souvislostech jazykového systému“* [1995, s. 5]. Nejvíce deficitní oblasti v rámci výzkumu odborného jazyka hospodářské sféry představují zejména zkoumání rozdílů mezi varietami obecného a odborného jazyka, typologizace lexikálně-frazeologického jazykového subsystému a analýzy komunikačních aspektů textové lingvistiky.

Moderní historii výzkumu hospodářského jazyka pojímaného jako heterogenní soubor jednotlivých odborných subjazyků provází neutuchající snaha o nalezení optimálního výkladového schématu jeho horizontálního a vertikálního rozvrstvení.

Na mikroúrovni diferenciace textové produkce je zkoumáno, jakým způsobem se od sebe odlišují jednotlivé druhy (nejčastěji psaných) textů hospodářského jazyka. Recentní pokusy učiněné v tomto směru germanofonními lingvisty se nejčastěji opírají o trojstupňové popisné modely, které v rámci vertikálního členění přiřazují textový materiál k jednotlivým jazykovým vrstvám podle jednoho stanoveného kritéria (abstraktnosti, explicitnosti, resp. exkluzivity), nebo na základě multikriteriálního posouzení.[1]

2 HOSPODÁŘSKÝ JAZYK V ZORNÉM POLI LINGVISTIKY A GERMANISTIKY – HISTORICKÝ EXKURS

Základní nároky kladené na aktéry hospodářského života v podmínkách soudobé mezinárodní a interkulturně zaměřené firemní komunikace lze shrnout do tří základních okruhů, jež reprezentují:

1. komunikační kompetence se zaměřením na znalost cizích jazyků nutná k dorozumění s obchodními partnery,
2. interkulturní kompetence nutná pro porozumění kulturně podmíněné specifičnosti jednání partnerů z jiných zemí,
3. interní a externí komunikace v rámci podniku jako výraz jeho (sebe)prezentace v kompetitivním mezinárodním prostředí.

Uvedené požadavky, jejichž aktuálnost je mnohdy dávána do souvislostí s celosvětovými socioekonomickými změnami posledních desetiletí, reprezentovanými například neustále připomínaným fenoménem globalizace, však moderní hospodářská lingvistika (Wirtschaftslinguistik) reflektuje již od svého zrodu ve 20. resp. 30. letech 20. století. Tehdy se konstituovaly její dvě hlavní profilující linie: a) historizující, b) strukturálně funkční. Adekvátní vědecko-historické zhodnocení příspěvku obou těchto badatelských přístupů k pozdějším zejména aplikačně lingvistickým výzkumům odborného a profesního jazyka přitom stále zůstává velkým a dosud nevyslyšeným desideratem.

V pracích reprezentantů historického směru hospodářské lingvistiky (např. E. Messinga a A. Schirmera) se spíše než přísně jazykozpytný interes odráží ozvuky širších politických, hospodářských a sociokulturních změn v rámci západoevropských společností od druhé poloviny 19. století. Prudký rozvoj světového obchodu s sebou přinesl zvýšenou potřebu znalosti cizích jazyků jako jedné z podmínek úspěšné realizace obchodních kontaktů. Reflektovaná znalost jazyka obchodního partnera znamenala pro „mezioborově“ uvažujícího pracovníka příležitost k odkrytí struktur kulturně podmíněného smýšlení a jednání jeho komunikačního protějšku. Po první světové válce se na vysokých školách obchodního zaměření v Německu, Holandsku, Švýcarsku a Československu začala pěstovat jazykověda pojímaná tehdy šířeji jako vědecká disciplína, zabývající se specifičností jazykových manifestací kulturně civilizačních projevů jednotlivých národů. Učitelé jazyka měli přitom dvě hlavní úlohy:

[1] Komparaci hlavních modelů Buhlmannové, Ohnackera a Boltena provedl T. Schlak [2000]. Jiný přístup zvolil s implicitním odkazem na teorii funkčních stylů Pražské lingvistické školy M. Hundt. Jím představený pětistupňový model člení skupiny textů hospodářského jazyka podle jejich účelu na textové druhy stylu obchodního dopisu, stylu teoreticko-vědeckého, stylu prakticko-poučného (zprostředkovacího), stylu hospodářské dokumentace a ekonomické žurnalistiky [1995, s. 50].

1. zprostředkovat studentům neodborný i odborný cizí jazyk,
2. vědecky pracovat v oblasti hospodářské lingvistiky, přičemž těžiště jejich zájmu mělo ležet zejména v historickém vývoji lexiky a jejím sémaziologickém ukotvení.

Svá lingvistická zkoumání představitelé historizujícího směru poprvé uceleně prezentovali ve sborníku Zur Wirtschaftslinguistik, který vyšel v Rotterdamu v roce 1932.[2]

Zájem o studium extralingvistických podmínek pro zdařilé vzájemné porozumění aktérů obchodní směny, které bychom podle dnešních měřítek mohli doplnit přívlastkem „interkulturní", lze tedy v lingvistickém a sociálně vědním povědomí vysledovat velice brzy a nelze jej tak chápat jako nějaký zcela nově ze sociální reality vyzdvižený fenomén, jak je mnohdy v soudobém společenském diskurzu traktován. Neméně nadčasově z dnešního pohledu působí rovněž pozornost, kterou tehdejší lingvisté hospodářského jazyka věnovali užití různorodých jazykových prostředků v závislosti na povaze dané komunikační situace. Tematizace funkční a sociální identifikace jazykových vrstev je ostatně aktuální i v současné lingvistice odborného jazyka.

V Pichtově klasifikaci je historická linie hospodářské lingvistiky označována jako asynchronní a je k ní počítána i svébytná pražská větev hospodářské germanistiky [Picht, 1998, s. 336–339]. Jejím ústředním představitelem byl mnohostranně profilovaný filolog H. Siebenschein. Ten se již od počátku třicátých let soustavně věnoval analýze manifestací hospodářského jazyka v krásné literatuře a specifickým zákonitostem odborné lexiky. V předmluvě své práce Abhandlungen zur Wirtschaftsgermanistik uvedl jako hlavní předmět svého výzkumu *„…odraz fenoménu obchodu a obchodníka v (německé) krásné literatuře, (…) vzájemné působení literární tvorby a historické reality a (…) specifické formy jazykových jevů s obchodnickou sémantikou"* [Siebenschein, 1936, s. 6].[3]

V okruhu pražských lingvistů působících na Vysoké škole obchodní má svůj původ také druhý – strukturálně funkční – proud hospodářské lingvistiky. Jeho hlavními reprezentanty byli od počátku 30. let J. Čada, Z. Vančura[4] a T. Krejčí[5]. Ve vědomé distinkci vůči historicky zaměřenému směru pohlížela uvedená skupina lingvistů na jazyk v jeho statickém průřezu, přičemž se opírala o strukturálně jazykovědný aparát Pražského lingvistického kroužku. Základní koncepční východiska uvedené skupiny badatelů lze shrnout do čtyř postulátů:

1. Předmětem zkoumání je jazyk v jeho osobité funkci, tj. jazyk v hospodářské sféře.
2. Hospodářský jazyk je nutno považovat za strukturovaný a funkční celek, který plní svůj účel v hospodářské sféře.
3. Hospodářský jazyk je chápán jako prostředek komunikace.
4. Při výzkumu hospodářského jazyka je důsledně uplatněno synchronní hledisko [Drozd, Seibicke, 1973, s. 74; Nycz, 2009, s. 25].

Pohnuté životní osudy mnoha významných badatelů v oblasti hospodářského jazyka během druhé světové války, vyplývající často z jejich židovského původu, se ve svém důsledku promítly do přerušení kontinuity dosavadních přístupů k odbornému hospodářskému jazyku.

[2] Blíže o tomto směru hospodářské lingvistiky referují např. L. Drozd, N. Seibicke [1973, s. 68-78], M. Hundt [1995, s. 16–24] a nejnověji K. Nycz [2009, s. 19–28].

[3] Ve jmenovaném díle shrnul výsledky svých zkoumání, založených na důsledné aplikaci etymologického přístupu a literárně historické metody na pojmy kaufen, verkaufen, Kaufmannschaft/Handel/Geschäft, reisen, Wirt, Wirtschaft, Geld, Kirche, Kapital, Schuld, Zins, Gewinn, Steuer, Ware, Vermögen. Jako pramen mu přitom posloužily dochované texty Hanse Sachse a dalších mistrů pěvců z 15. a 16. století.

[4] Anglista Z. Vančura přispěl ke zdokumentování funkční struktury odborného hospodářského jazyka [1941].

[5] Příspěvek T. Krejčího spočíval v historicko-stylistickém rozboru obchodního dopisu v proměnách jeho formy, vysledovatelné již od 14. stol. [1941].

Po druhé světové válce nebylo na delší dobu v nastoupené tradici pokračováno také proto, že se předmět zájmu hospodářské lingvistiky orientoval čistě na imanentní struktury jazyka. Do popředí se dostaly zejména problematika etymologie výraziva z různých odvětví hospodářství, zkoumání lexikálních přejímek, dále otázky terminologické kodifikace a komplexní jazykové analýzy z okruhů hospodářské politiky, reklamy, burzy a vědeckého jazyka ekonomie [Wöhrmann, 2010, s. 85].

3 HOSPODÁŘSKÉ LINGVISTIKA NA POZADÍ SPOLEČENSKÝCH ZMĚN POZDNÍ MODERNITY

I po tzv. komunikativně-pragmatickém obratu[6] v lingvistice na začátku 70. let se autoři na práce svých předchůdců z doby před druhou světovou válkou nijak neodkazují. Výzkum hospodářského jazyka provází nástup různorodých přístupů a tendencí. Do centra odborného zájmu lingvistů se dostaly výzkumy syntaxe a morfologie, jazyková a ideová kritika, didaktika výuky odborného jazyka a podniková lingvistika. Sedmdesátá a osmdesátá léta přinesla do poměrně úzce vymezeného pole hospodářské lingvistiky, zabývající se pouze jazykově imanentními fenomény celou řadu monodisciplinárních i obecně civilizačních impulzů. Rozhodující význam lze v tomto ohledu přičíst neustále akcelerujícímu procesu internacionalizace hospodářských vztahů a zejména pak rychlému rozvoji technologických inovací v oblastech dopravy a médií, který přispěl k výraznému zkrácení časoprostorových vzdáleností.

Tlak praxe se projevil i v proměně výzkumného pole lingvistiky odborného jazyka, která se pod vlivem pragmalingvistických teorií postupně oprostila od své primárně terminologické orientace a zaměřila se na analýzu procesů komunikačního jednání v prostředí každodenních internacionálních ekonomických vztahů – zejména z pozice jazykově a kulturně kontrastivního srovnávání. Významné impulzy pro zkoumání odborného jazyka v tomto ohledu poskytují zejména poznatky z oblasti sociolingvistiky[7], kontaktové lingvistiky, či etnometodologické konverzační analýzy.[8]

Poslední jmenovaný přístup úzce souvisí s pohledem, který na odbornou komunikaci uplatnila subdisciplína označovaná jako funkcionální pragmatika jazyka.[9] Svůj úkol vidí v rekonstruování souvislostí mezi prací jako praktickou a na dosažení cíle orientovanou činností, interakcí zúčastněných jednotek a komunikací s vyústěním do vyšší efektivnosti. Podobně jako výše uvedené obory vnáší také pragmatika do lingvistiky otázky, které jsou tradičním jazykovědným disciplínám cizí. Netýkají se totiž jazykového systému jako takového, ale spíše principiální možnosti stavby jazykových výrazů a jejich významu, tj. jak je formulována a naplňována potřeba v systému daných možností (např. organizace) plynoucích z daných věcných, situačních a komunikačních podmínek [Niklesová, 2006, s. 64].

Použitá literatura

1. BUHLMANN, R.; FEARNS, A. 2000. *Handbuch des Fachsprachenunterrichts*. Tübingen : Gunter Narr, 2000, 468 s. ISBN 3-8233-4965-1.

[6] Tuto novou orientaci v lingvistice a potažmo i v didaktice cizích jazyků lze stručně charakterizovat konstatováním, že se těžiště pozornosti badatelů přesouvá od systémových a strukturních vlastností jazykového kódu (langue) k jeho řečovému fungování (parole) v měnících se podmínkách společenské komunikace.

[7] Nové přístupy z oblasti výzkumu firemní komunikace shrnuje např. I.E. Castensová [Castens, 2010].

[8] Širší diskurzivní rámec etnometodologického přístupu nastiňuje J. Nekvapil [2010].

[9] Podle noetických východisek analytické filozofie nelze jazyk systematizovat funkcionálně logicky, ani funkcionálně pragmaticky, ale funkcionální logiku lze vyložit právě pomocí funkcionální pragmatiky jazyka. Funkcionální pragmatika zkoumá jazyk v jeho konkrétních způsobech použití v konkrétních situacích.

2. DROZD, L.; SEIBICKE, W. 1973. *Deutsche Fach- und Wissenschaftssprache. Bestandsaufnahme – Theorie – Geschichte*. Wiesbaden : Brandstetter, 1973, 207 s. ISBN 3-87097-058-8.
3. HUNDT, M. 1995. Modellbildung in der Wirtschaftssprache. Zur Geschichte der Institutionen- und Theoriefachsprachen der Wirtschaft. Tübingen : Niemeyer, 1995, 316 s. ISBN 978-3-484-31150-3.
4. KASTENS, I.E. et al. *Handbuch Wirtschaftskommunikation. Interdisziplinäre Zugänge zur Unternehmenskommunikation*. UTB GmbH : Stuttgart, 2016, 648s. ISBN 978-3825286866.
5. NEKVAPIL, J. 2010. Etnometodologické inspirace. *Sociologický časopis.* 2010, roč. 46, č. 4, s. 497–680. ISSN 0038-0288.
6. NIKLESOVÁ, D. 2006. Charakteristika, cíle a problémy interkulturní komunikace. *Acta Oeconomica Pragensia*. 2006, roč. 14, č. 4, s. 63–68. ISSN 0572-3043.
7. NYCZ, K. 2009. Fachterminologie als Mittel des Fachwissenstransfers. Dargestellt am Beispiel der deutschen Börsenberichterstattung. Hamburg : Kovač, 2009, 196 s. ISBN 978-3-8300-4507-6.
8. SCHLACK, T. 2000. Wirtschaftsdeutsch - Definitionsversuche eines undefinierbaren Begriffs. *Deutsch als Fremdsprache in Korea.* DaF Heft 6, 2000, s. 150–164. Dostupný také z WWW: <daf.german.or.kr/arbeit/6-torsten.doc>.
9. SIEBENSCHEIN, H. 1936. *Abhandlungen zur Wirtschaftsgermanistik.* Prag : Orbis, 1936, 254 s.
10. WÖHRMANN, U. 2010. Historisierende und strukturell-funktionale Wirtschaftslinguistik und Wirtschaftsgermanistik. Inhalte und Methoden sowie Relevanz für die gegenwärtige interkulturelle Wirtschaftskommunikation. In SAHEL, S.; VOGEL, R. (Hrsg.). *11. NLK Proceedings 2010.* Bielefeld : Universität Bielefeld, 2010, s.77–98. ISBN 978-3-8300-4863-3.

Kontaktní údaje

Mgr. Tomislav Potocký, Ph.D.
Vysoká škola finanční a správní, a.s.
Fakulta sociálních studií,
Katedra jazyků
Estonská 500, 101 00 Praha 10
Mobil: 724 681 766
Telefon: 210 088 826
E-mail: tomislav.potocky@vsfs.cz

PEOPLE WITH HEARING DISABILITIES IN THE TREATMENT AND THERAPY OF ADDICTION TO PSYCHOACTIVE SUBSTANCES

Marta Pięta

Abstract

Addiction to psychoactive substances in the communities of people with hearing disabilities, despite being a significant social problem for years, is perceived as an intimate and shameful phenomenon, still often hidden or negated. This article addresses the problem of treatment and therapy of addiction to psychoactive substances of persons with hearing impairment in the context of its availability and therapeutic interactions regarding this group of patients in the perspective of the implementation process.

Keywords: *hearing disability, addiction to psychoactive substance, addiction therapy, patient with hearing impairment, therapeutic interactions*

1. INTRODUCTION

Disability is often associated with an increased risk of people experiencing failures in various social situations, the need to overcome numerous problems and barriers, as well as feelings of frustration and stress[1]. Hearing impairments and accompanying disturbances in the development of speech, connecting people with the external environment, cause irregularities in its psychosocial functioning, identification with significant others, and the acquisition of moral and ethical norms or rules of coexistence in society[2].

Unpleasant feelings, experienced obstacles, and social isolation, as well as difficulties to cope with other spheres of life, may also significantly affect the vulnerability of people with hearing impairments to becoming addicted to psychoactive substances. The authors of issues in this field indicate that addictions, in particular to alcohol, have been an important social problem in this group for many years. At the same time, they emphasize that despite the legal guarantees of the availability of specialist therapeutic assistance, the problem of maladjustment of programs and forms of treatment to the communication needs of this group still remains, what in people with hearing disability creates prejudices and causes a negative attitude towards addiction therapy[3].

In the communities of people with hearing impairment, due to their specific hermetic nature and a strong sense of group community, addiction to psychoactive substances, despite being a serious problem for years, are perceived as an intimate and shameful phenomenon, and are often hidden or denied. The causes of the scale of the problem should be sought not only

1 M. Wójcik. *Wybrane aspekty społecznego funkcjonowania młodzieży niesłyszącej i słabosłyszącej*. Kraków: Oficyna Wydawnicza Impuls, 2008, p. 13.

2 M. Zaborniak-Sobczak. *Osoby z wadą słuchu wobec wybranych problemów integracji psychospołecznej*. Rzeszów: Wydawnictwo Uniwersytetu Rzeszowskiego, 2009, p. 43.

3 A. Laskowska-Klimczewska, J. Łacheta. *Sprawy społeczne*. In: M. Świdziński (ed.): *Sytuacja osób głuchych w Polsce. Raport zespołu ds. g/Głuchych przy Rzeczniku Praw Obywatelskich*. Warszawa: Biuro Rzecznika Praw Obywatelskich, 2014, p. 83.

in the characteristics of people with hearing disabilities, their difficulties, limited amount of experience or social isolation, but also in inequalities in access to treatment and addiction therapy.

2. DIVERSIFICATION OF ACCESS TO ADDICTION TREATMENT AND THERAPY

In many societies, there is a diversification of the accessibility to health services, which is a significant problem for public health and related health status of members of society, as well as their quality and life expectancy. Some of the social groups for various reasons do not get access to them to such a degree and extent that it is achievable for most environments. Difficulties and barriers in this area, defined as inequalities in access to treatment, include various minority groups, including linguistic or cultural, which include the community of people with hearing disabilities, in the case of which people often disregard or violate their rights[4].

The findings presented in the literature of the subject indicate the occurrence of certain specific and resulting from their characteristics problems related to addictions in people belonging to different minorities, and thus in people with hearing impairments. In the case of the community of people with hearing disability, attention is paid to the low level of emotional stability, increased level of self-centeredness, lower than in those, who hear, level of social maturity or less independence and weaker ability to control their behavior[5], that is, the features corresponding to personality factors favoring greater susceptibility to addiction to psychoactive substances[6].

The use of addiction treatment in unequal range for minority groups is revealed primarily in achieving worse results. The causes of inequality are contained in the difficult access to various forms of treatment or their weaker effectiveness in relation to the general population. A worrying consequence of the described inequalities, in the context of the scale of the problem of addictions in the environments of cultural minorities, is a low level of participation of patients recruited from them in the treatment system and addiction therapy[7]. A small percentage of people with hearing disabilities, benefiting from the support of care institutions or specialist help, is still particularly noticeable in this area[8].

The symptoms of inequality in access to addiction treatment and therapy are already noticeable at the stage of diagnosis. Erroneous diagnoses and the resulting decisions on the selection of inappropriate forms of treatment result from the biased and unilateral diagnosis of mental disorders in patients originating from minority backgrounds. The questionnaires and scales for measuring the use of psychoactive substances also play a significant role here. People who belong to linguistic or cultural minorities very often respond to the questions

4 A.W. Blume, M.R. Resor, A.V. Kantin. *Nierówności w dostępie do lecznictwa uzależnień. Mniejszości etniczne i seksualne*. In: P.M. Miller (ed.): *Terapia uzależnień. Metody oparte na dowodach naukowych*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego, 2013, pp. 315-316.

5 M. Wójcik, op. cit., p. 17.

6 Vide A. Lipczyński. *Psychologiczne mechanizmy uzależnienia i ich znaczenie dla procesów zdrowienia*. In: W. Poleszak (ed.): *Oblicza uzależnień: terapia jako przywracanie wolności*. Lublin: Wydawnictwo Naukowe Innovtio Press, 2013.

7 A.W. Blume, M.R. Resor, A.V. Kantin, op. cit., pp. 315-316.

8 A. Laskowska-Klimczewska, J. Łacheta. K. Maciejska-Roczan, op. cit., p. 76.

contained in them a bit differently than the majority of society. Often the reasons for these differences arise from the translation and adaptation of diagnostic tools, changing their original content, especially when in the language, and in the case of persons with hearing disability it is the sign language to which they are translated, there are no keywords and concepts[9]. As a consequence, people with hearing impairments, seeking help in mental health clinics, support or treatment for disability centers, in most of which no sign language personnel are employed, are often directed to inappropriate facilities or inappropriate forms of treatment and therapy are applied to them[10].

Matching the therapeutic offer for patients recruited from cultural minorities, after recognizing their addiction, may also be problematic[11]. A significant factor hampering the conduct of therapy is the stigmatization and social exclusion of people who developed a dependence on psychoactive substances, revealing the disorder caused by it. In the social perception of addicted persons, among the ordinary members of the community, as well as among professionals and patients, pessimism, doubts about the possibility of change dominate, but also moralizing and attributing guilt for the current life situation to the patients themselves[12]. Culture-conditioned beliefs rooted in stereotypes are an additional disincentive for addicted persons to participate in therapy. It is in contradiction with the views on self-control and broadly understood privacy functioning in specific communities. In addition, there may be some differences between the cultural values recognized by therapists and the basis for the therapy models they use, and the ideas and values shared by patients[13].

Another issue related to inequalities in access to therapy is time. Specialists working with an addicted patient have a limited time foreseen for individual or group sessions and a definite duration of the entire therapeutic process[14]. In the case of people coming from cultural minorities, using a different language than the therapist and other patients, there may appear specific communication problems. They require not only the individual approach proposed in the therapy and a correspondingly greater amount of time during the session, but also involve the need to develop a system of effective communication or to introduce organizational changes to the therapy plan, without which the participation of language minority members, including people with hearing disability, in the treatment and therapy will be difficult or impossible.

In addition, in minority environments characterized by a strong sense of group ties, the importance from the perspective of cultural values is attributed to the close social environment and family. In the opinion of patients derived from these groups, their families should also be supported, hence their expectations regarding the extension of therapeutic interventions in this area. In most cases, however, the models of therapy are oriented to work

9 A.W. Blume, M.R. Resor, A.V. Kantin, op. cit., pp. 315-316.
10 A. Laskowska-Klimczewska, J. Łacheta. K. Maciejska-Roczan, op. cit., p. 77.
11 A.W. Blume, M.R. Resor, A.V. Kantin, op. cit., p. 317.
12 W.R. Miller, A.A. Forcehimes, A. Zweben. *Terapia uzależnień. Podręcznik dla profesjonalistów.* Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego, 2014, p. 23.
13 A.W. Blume, M.R. Resor, A.V. Kantin, op. cit., p. 317.
14 W.R. Miller, A.A. Forcehimes, A. Zweben, op. cit., p. 22.

with the individuals and with their progress and autonomy, and they do not seem to recognize these needs[15].

3. THERAPEUTIC IMPACTS IN THE CONTEXT OF THE IMPLEMENTATION PROCESS

In the perspective of implementation, considerations of treatment and therapy focus mainly on the degree of their impact on processes occurring in a given environment, including their acceptance, adaptation, and usability. Implementation is an important stage between making decisions on the adaptation of innovative solutions and implying them to commonly used practices[16]. However, its assumptions may be useful in the assessment of already existing forms of addiction treatment and specialist help in the context of the specific needs of people with hearing disabilities and the resulting need to eliminate inequalities in access and their adaptation.

The essence of the implementation process is included in placing the goal set for the implementation, taking into account primarily the needs of patients undergoing therapeutic interventions. Adjusting the goals to the needs is to increase the possibilities of achieving positive results and to foster cooperation on the part of the participants of the treatment program in obtaining important therapeutic goals. The legal and administrative procedures applied as part of addiction treatment, due to their strictly formal nature, make it impossible in many cases to comply with the principle of individualization in therapeutic treatment[17]. Certain therapeutically significant actions can only be applied to a small group of patients, or their conduct may be associated with significant difficulties and prove to be unduly burdensome for some therapists[18].

Thus, one recognizes the necessity of maintaining a certain flexibility in the adopted strategies of actions and a greater openness to some compromises. Achieving consensus in this area, although it may be associated with complications in the implementation of the program, may weaken the objectives or slightly impair the transparency of the presented results of therapy, in the case of specific groups of patients, which undoubtedly are persons with hearing damages, but it is necessary. In addition, it is emphasized that the set goals should be precisely formulated, easily comparable and explicit. Sometimes it is also recommended to set several different goals for programs, enabling a smooth transition from one to the next, and to undertake institutional cooperation in the field of providing assistance to a given patient[19].

An appropriate formulation of treatment and therapeutic programs goals is not the only element that decides about successful implementation. A number of factors that support and disrupt this process are pointed out here. The literature on the subject distinguishes among others: scope of expanding existing systems, attitude to the ability to achieve desired effects, motivation,

15 A.W. Blume, M.R. Resor, A.V. Kantin, op. cit., p. 318.

16 P. M. Flynn, D. Simpson. *Adaptacja i wdrażanie terapii opartej na dowodach naukowych.* In: P.M. Miller (ed.): *Terapia uzależnień. Metody oparte na dowodach naukowych*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego, 2013, p. 415.

17 R. Opora. *Efektywność oddziaływań resocjalizacyjnych*. Warszawa: Wydawnictwo Akademickie Żak, 2015, p. 213.

18 P.M. Flynn, D. Simpson, op. cit., p. 421.

19 R. Opora, op. cit., pp. 213-214.

time and resources, personnel competences, prospects for obtaining benefits, and transparency of procedures and implemented strategies[20].

In the context of the implementation assumptions described here, the low rate of participation of people with hearing loss in the treatment and addiction therapy system is still noticeable. Existing forms of support, that are not adapted to the specific needs of people with auditory disabilities, as well as not taking them into account when setting therapy goals, exclude the implementation of specific assumptions of the interactions programs.

In the process of communication in people with hearing dysfunction, there is a disruption in the reception and understanding of verbal messages, especially in conversations carried out at too fast pace. Hearing impaired people, using hearing aids or cochlear implants, as well as people with deafness and partial deafness, who are fluent in the ability to read the speech from the mouth, may have difficulty in recognizing certain words or phrases and need more time to find out and replace missing parts of the conversation. A full understanding of the message is, therefore, possible only when providing them with the right amount of time and optimal conditions to listen to particular elements of the statements and to observe the face of the interlocutor. Significant or deep damage to hearing, in many cases, makes it impossible for those affected to identify even the subject of speech, especially when they know the interlocutor poorly[21]. Difficulties in this area may appear especially in the initial stages of the therapeutic process, but also in situations where the therapist does not have enough experience working with people with hearing disabilities.

Restrictions also apply to the possibility of people with hearing impairments in participating in discussions or conversations in groups of more than 3-4 people, and therefore in a group therapy, due to difficulties in simultaneously perceiving their complexity and many aspects of conversations[22]. As a result, their participation in the conversation can only be apparent, while in fact they are often excluded from it[23].

The authors of the report on the situation of deaf people in Poland, describing the issues of inequality in access and maladjustment of the therapeutic offer, indicate in this area the lack of qualified staff familiar with their situation and using sign language, and draw attention to the limitations of the few support programs addressed to them, only to counteract alcohol dependence[24].

---

20 Vide P. M. Flynn, D. Simpson. *Adaptacja i wdrażanie terapii opartej na dowodach naukowych.* In: P.M. Miller (ed.): *Terapia uzależnień. Metody oparte na dowodach naukowych*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego, 2013.

21 K. Krakowiak, Ł. Krakowiak. *Trudności niesłyszących jako wyzwanie do odpowiedzialności i ustawicznego dialogu*. In: K. Krakowiak, R. Kołodziejczyk, A. Borowicz, E. Domagała-Zyśk (ed.): *Student niesłyszący we wspólnocie akademickiej. Informator o warunkach edukacji wyższej osób z uszkodzeniami słuchu*. Lublin: Wydawnictwo Katolickiego Uniwersytetu Lubelskiego, 2011, p. 25.

22 A. Kołodziejczak, *Pomiędzy dwoma światami- problem tożsamości społecznej wybranej grupy niesłyszących*. In: E. Woźnicka (ed.): *Tożsamość społeczno-kulturowa głuchych*. Łódź: Polski Związek Głuchych Oddział Łódzki, 2007, p. 28.

23 B. Szczepankowski. *Niesłyszący, głusi, głuchoniemi: wyrównywanie szans*. Warszawa: Wydawnictwa Szkolne i Pedagogiczne- Spółka Akcyjna, 1999, p. 373.

24 A. Laskowska-Klimczewska, J. Łacheta. K. Maciejska-Roczan, op. cit., pp. 77-85.

4. SUMMARY

The analysis of the presented issues indicates the need to conduct research on the phenomenon of addiction of people with disabilities in order to deepen the existing knowledge and broaden the area of reflection on the issues of therapeutic assistance and addiction treatment. Understanding the specificity of the phenomenon of addiction in the group of hearing-impaired patients may contribute not only to developing more effective strategies to optimize communication processes with people with hearing disabilities, but also to enable more appropriate selection of methods to work with them, adapt them, and improve the effectiveness of therapy on all its stages.

Bibliography

1. BLUME A.W., RESOR M.R., KANTIN A.V. *Nierówności w dostępie do lecznictwa uzależnień. Mniejszości etniczne i seksualne*. In: Miller P.M. (ed.): *Terapia uzależnień. Metody oparte na dowodach naukowych*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego, 2013. pp. 313-324. ISBN 978-83-235-1166-3.
2. FLYNN P.M., SIMPSON D. *Adaptacja i wdrażanie terapii opartej na dowodach naukowych.* In: Miller P.M. (ed.): *Terapia uzależnień. Metody oparte na dowodach naukowych*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego, 2013. pp. 412-430. ISBN 978-83-235-1166-3.
3. KOŁODZIEJCZAK A. *Pomiędzy dwoma światami- problem tożsamości społecznej wybranej grupy niesłyszących*. In: Woźnicka E. (ed.): *Tożsamość społeczno-kulturowa głuchych*. Łódź: Polski Związek Głuchych Oddział Łódzki, 2007. pp. 21-32. ISBN 978-83-920424-4-0.
4. KRAKOWIAK K., KRAKOWIAK Ł. *Trudności niesłyszących jako wyzwanie do odpowiedzialności i ustawicznego dialogu*. In: Krakowiak K., Kołodziejczyk R., Borowicz A., Domagała-Zyśk E. (ed.): *Student niesłyszący we wspólnocie akademickiej. Informator o warunkach edukacji wyższej osób z uszkodzeniami słuchu*. Lublin: Wydawnictwo Katolickiego Uniwersytetu Lubelskiego, 2011. pp. 9-34. ISBN 978-83-7702-285-6.
5. LASKOWSKA-KLIMCZEWSKA A., ŁACHETA J., MACIEJSKA-ROCZAN K. *Sprawy społeczne*. In: Świdziński M. (ed.): *Sytuacja osób głuchych w Polsce. Raport zespołu ds. g/Głuchych przy Rzeczniku Praw Obywatelskich*. Warszawa: Biuro Rzecznika Praw Obywatelskich, 2014. pp. 71-88. ISBN 978-83-65029-01-0.
6. LIPCZYŃSKI A. *Psychologiczne mechanizmy uzależnienia i ich znaczenie dla procesów zdrowienia*. In: Poleszak W. (ed.): *Oblicza uzależnień: terapia jako przywracanie wolności*. Lublin: Wydawnictwo Naukowe Innovtio Press, 2013. pp. 25-35. ISBN 978-83-62074-66-2.
7. MILLER W.R., FORCEHIMES A.A., ZWEBEN A. *Terapia uzależnień. Podręcznik dla profesjonalistów.* Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego, 2014. ISBN 978-83-233-3762-1.
8. OPORA R. *Efektywność oddziaływań resocjalizacyjnych*. Warszawa: Wydawnictwo Akademickie Żak, 2015. ISBN 978-83-65231-04-8.
9. SZCZEPANKOWSKI B. *Niesłyszący- głusi- głuchoniemi. Wyrównywanie szans*. Warszawa: Wydawnictwa Szkole i Pedagogiczne, 1999. ISBN 83-02-07396-2.
10. WÓJCIK M. *Wybrane aspekty społecznego funkcjonowania młodzieży niesłyszącej i słabosłyszącej*. Kraków: Oficyna Wydawnicza Impuls, 2008. ISBN 978-83-7587-038-1.

11. ZABORNIAK-SOBCZAK M. *Osoby z wadą słuchu wobec wybranych problemów integracji psychospołecznej*. Rzeszów: Wydawnictwo Uniwersytetu Rzeszowskiego, 2009. ISBN 978-83-7338-434-7.

Contact

mgr Marta Pięta, M.Ed.
University of Gdańsk: Faculty of Social Sciences,
Institute of Pedagogy: Division of Social Pathology and Social Rehabilitation
Bażyńskiego 8, Gdańsk, Polska
Tel: +48 58 523 42 61
email: marta.pieta@ug.edu.pl

RIZIKOVÉ CHOVÁNÍ SE ZAMĚŘENÍ NA SEXTING

RISK BAHAVIOR WITH SEXTING

Tereza Kaláčková

Abstrakt

Článek se zaměřuje na rizikové chování mládeže, přináší stručný přehled definic rizikového chování různých autorů (Miovský, Trimpop, Moor a Gullone) a také jeho možné členění. V souvislosti s rizikovým chováním uvádíme rovněž také preventivní programy, které se v České republice uplatňují na celostátní úrovni. V neposlední řadě si vymezíme pojem sexting.

Klíčová slova: *rizikové chování, sexting, prevence*

Abstract

The article focuses on the risk behavior of youth, provides a brief overview of the definitions of risk behaviors of various authors (Miovský, Trimpop, Moor and Gullone) and its possible breakdown. In relation to risk behavior, we also mention preventive programs implemented in the Czech Republic at national level. Last but not least, we define the term sexting.

Key words: *risk behavior, sexting, prevention*

1 RIZIKOVÉ CHOVÁNÍ

Rizikové chování je vlastně nadřazeným pojmeme pro problémové, delikvetní, antisociální a disociální chování. Jedná se o pojem komplexní, jimž se zabývají jak medicínské tak společenskovědní obory. Dle Macka (1999) je rizikové chování takové chování, které poškozuje psychosociálně nebo zdravotně daného jedince, jiné osoby, majetek, popřípadě prostředí. Podíváme-li se na na teorie vzniku rizikového chování, pak je dle Fischera a Škody (2009) můžeme rozdělit od těchto skupin – teorie biologicko-psychologické, teorie sociálně psychologické a sociologické teorie. První skupina hledá souvislost mezi charakterem a chováním, dále genetikou a hormony atd. Další skupina pak hovoří o teoricích učení, rysech osobnosti a temperamentu. V neposlední řadě sociologické teorie pak poukazují naspolečenské a kulturní souvislosti na vzniku rizikového chování (Macek 1999, Fischer a Škoda 2009, Sobotková a kol. 2014).

V obdobé puberty a adolescence je poměrně časté, že se u jedince projeví nějaká z forem rizikového chování, WHO(Světová zdravotnická organizace) dokonce stanovila tzv. syndrom rikového chování v dospívání. Tento syndrom se skládá ze tří složek: zneužívání návykovýh látek, negativní jevy v oblasti psychosociálního vývoje a rizikové chování v reprodukční oblasti. Ačkoliv do rizikového chování spadá celá řada témat, my se v článku zaměříme na rizikové sexuální chování (Sobotková a kol. 2014).

Rizikové chování je poměrně frekventovaným pojmem a zabývá se jím celá řada autorů. Dle Miovského (2010) lze rizikové chování definovat jako chování, při kterém dochází ke zvýšení výchovných, sociálních a zdravotních rizik. Vzorce rizikového chování představují soubor fenoménů, jež lze do značné míry ovlivnit jednak prevencí, jednak lékařskými zásahy.

Pojem rizikové chování nahradil dříve používaný termín sociálně patologické jevy. Sociální patologie je vědním oborem, jenž se zabývá studiem sociálně patologických jevů. Patologické jevy jsou problematikou ležící napříč hned několika oborů – kulturní a sociální antropologie,

sociologie, etiky, práva a další. V sociologii zkoumá tyto jevy tzv. sociologie deviantního chování (Krejčířová, Skopalová 2007, Skopalová 2000).
Pojetí pojmu rizikového chování u zahraničních autorů se do značné míry odlišují. Dle Trimpopa (1994) se jedná o chování, při němž je vnímána nejistota s ohledem na výsledek anebo možných přínosů (nákladů) na ekonomickou, fyzickou či psychosociální pohodu jedince samotného nebo jiných (Trimpop, 1994).
Mimo tuto definici najdeme v zahraniční literatuře také další, jež jsou závislé na oboru výzkumu. V ekonomickém pohledu je riziko definováno z hlediska proměny možných peněžních výsledků, v klinické literatuře je pak riziko definováno jako působení (vliv) vedoucí k možné ztrátě nebo škodě (Schonberg, Fox, & Poldrack, 2011).
Dále se problematikou rizikového chování zabývali Gullone a Moor (2000), tito autoři vymezují rizikové chování jako podílení se na takovém typu jednání, jež v sobě zahrnuje také možné negativní důsledky a ztráty. Zmíněné riziko ovšem dle nich vyvažují vnímané pozitivní důsledky či zisky plynoucí z rizikových aktivit.
Rizikové chování dělíme do několika skupin, které se ovšem vzájemně často ovlivňují a prolínají. Jedná se o rizikové chování v oblasti zneužívání návykových látek, v souvislosti se sexuálním chováním a v oblasti psychosociálního vývoje. Projevy rizikového chování v sociálním kontextu znamenají, že na jejich vznik působí různé faktory společnosti různou měrou, a to také v závislosti na věku jedince. Je jasné, že vývoj v České republice ve 20. století se značně odlišoval od vývoje západoevropských zemí. Společnost během této doby prošla dvěma totalitními režimy. Za dob reálného socialismu byla např. kriminalita mnohem nižší, než je tomu dnes. Jedním z důvodů může být neustálý „dohled“ nad občany. Po tzv. sametové revoluci lidé zažívali pocit svobody a volnosti, a tím došlo k úpadku norem a hranic. V závislosti na hospodářském a ekonomickém vývoji byl očekáván nárůst kriminality mládeže, a to zejména ve velkých městech (Herzer, 2001, Matoušek, Matoušková 2011, Smolík 2000).
Vrstevníci hrají v oblasti rizikového chování neopomenutelnou roli. Z pohledu sociologických teorií nemůžeme mluvit o jednotné kultuře mládeže nýbrž o tzv. subkultuře mládeže. Jedná se o typ subkultury, v níž se uplatňuje specifické chování mládeže, sklon preferovat určité hodnoty, přijímání nebo odmítání společenských norem a rovněž životní styl. V praxi to znamená, že jednotlivé skupiny dospívajících se od sebe odlišují právě díky jejich společnému zájmu, problému apod. Termín subkultura bývá často zaměňován s neméně důležitým pojmem životní styl. Životní styl se zaměřuje na hodnoty člověka a promítá se do jeho chování. Jak uvádí Smolík, jedná se o *„souhrn životních forem, jež jedinec aktivně prosazuje“* (Pávková, 1999, Smolík, 2000, s. 38).
V souvislosti se subkulturami mládeže hovoříme často o rizikovém chování. Pojem riziko z italského risico má několik variant výkladu od nebezpečí nezdaru až po možnost respektive pravděpodobnost škody, ztráty a také šanci na zisk. Někteří z autorů definují část mládeže jako rizikovou. Například pro Labátha (2001) jsou rizikovou mládeží právě dospívající, na které působí více faktorů zároveň, těmi, u nichž může dojít se zvýšenou pravděpodobností k selhání jak v oblasti sociální, tak psychické. Mezi vybrané subkultury mládeže v ČR patří například punk, techno a taneční scéna, graffiti apod. Jak z výše uvedeného vyplývá, být součástí určité subkultury se řadí k jednomu ze společenských faktorů, důsledkem kterého může vzniknout rizikové chování. Dalším významným faktorem je bezesporu rodina, která jedince formuje, utváří a sehrála významnou roli v primární socializaci. Afunkční, dysfunkční rodina, rodina se špatnou socioekonomickou úrovní je mnohdy tzv. „spouštěčem“ rizikového chování. Podle jiných autorů rizikovým faktorem v tomto případě rozumíme faktory, které mohou vést k negativnímu vývoji, jedná se například o chudobu, dysfunkční rodinné zázemí, strádání, deprivaci (Herzer 2011, Labáth, 2001, Smolík 2000).

1.1 Preventivní programy v České republice

V rámci Strategie primární prevence na období 2013–2018 se Ministerstvo školství, mládeže a tělovýchovy zaměřuje zejména na primární prevenci rizikového chování, tedy snaží se předcházet jejich vzniku. Podle zmíněné strategie primární prevence se jedná zejména o zaměření se na tyto rizikové projevy:

- interpersonální agresivní chování – šikana, kyberšikana, agrese, rasismus atd.;
- delikventní chování – vandalismus, sprejerství;
- záškoláctví;
- závislostní chování – gambling, užívání návykových látek;
- rizikové sportovní aktivity a prevence úrazů;
- rizikové chování v dopravě a prevence úrazů;
- poruchy příjmu potravy – anorexie, bulimie;
- negativní působení sekt;
- sexuální rizikové chování (MŠMT 2013).

Je jasné, že prevence škol by sama o sobě byla nedostačující a proto škola velmi úzce spolupracuje právě se školskými poradenskými zařízeními, nestátními neziskovými organizacemi, jež pracují s dětmi a mládeží a zákonnými zástupci dětí. Primární prevence v ČR je koordinována jak horizontálně, tak vertikálně. Horizontální koordinace spočívá ve spolupráci Ministerstva školství, mládeže a tělovýchovy s příslušnými resorty, např. s Ministerstvem zdravotnictví, Ministerstvem vnitra a jeho Republikovým výborem pro prevenci kriminality atd. Vertikální koordinací rozumíme snahu, aby regionální i místní aktivity byly jednotné. Na této úrovni pracují krajští školští koordinátoři prevence, metodici prevence a školní metodici prevence. Je proto více než žádoucí, aby také volný čas dětí, mládeže, adolescentů byl naplněn nějakou smysluplnou aktivitou. Kvalitní nabídka aktivit pro volný čas, stejně jako správně nastavený školní preventivní program a dobré rodinné zázemí může sloužit jako dobrý prostředek k prevenci před rizikovým chováním. (Hofbauer, 2004, MŠMT, 2013).

S prevencí rizikového chování souvisí také podpora mládeže, která je zakotvena v Koncepci podpory mládeže na období 2014–2020, jejíž cílovou skupinou jsou lidé ve věku 13–30 let. Tato koncepce přináší strategické cíle politiky státu ve vztahu k mládeži ve formě pilířů, horizontálních priorit, strategických a dílčích cílů a opatření. Zmíníme alespoň pilíře, které by mimo jiné měly usnadnit tzv. přechodové období, tedy období přeměny mladistvého, adolescenta v dospělého člověka. Usnadnění procesu přerodu mladého člověka v samostatného jedince zodpovědného za svůj život, svoji rodinu, komunitu a společnost je prvním pilířem koncepce. Další pilíř představuje orientaci na skutečné potřeby a možnosti mladých lidí a dále podporu potenciálů mladých lidí pro rozvoj společnosti (MŠMT, 2014).

1.2 Rizikové sexuální chování - sexting

Nejdříve si definujme, co to vlastně pojem sexting znamená. Dle Streichmana (2009) se jedná o *akt rozesílání fotografií zachycujících nahotu mezi mobilními telefony, či dalšími elektronickými médii, např. internetem.* Na sexting se můžeme dávat také jako na materiály šířené mladými lidmi, které jsou dále šířeny (Wolak, Finkelhor, Mitchell, 2011–2012.

Sulivan (2011) pak do sextingu řadí sugestivní textové zprávy a obrázky zobrazující nahé nebo nebo částečně obnažené děti, dospělé, které jsou pak dál šířeny mobilem nebo internetem.

Je nutné, aby rodina, škola i sociální politika pochopila složitost hrozbu sextingu jakožto kulturního feoménu. Počet jedinců, kteří se stali „obětí“ sextingu je možné jen velmi obtížně vyčíslit, protože je nedostatek jasných přesných definic. Jisté ale je,že pro dostatečnou prevenci před takovýmto chováním je potřebné vzdělání jak mládeže, tak rodičů v této oblasti

Moore 2012) . – Sexting in Neuropsychiatrie de l'Enfance et de l'Adolescence, *IACAPAP 2012 – 20th World congres* vol 60, 64-126 s.
Vzhledem ke skutečnosti, že se komunikace prostřednictvím počítače stala velice populárním prostředkem mezilidské komunikace, není až tak překvapující, že se z ní stal také prostředek pro sexuální interakci (Lenhart, 2012; Lenhart, Ling, Campbell, & Purcell, 2010).
Od roku 2009 se sextingem zabývají výzkumy na celém světe – USA, Velka Británie, Čína. Výzkum The National Campaign to Prevent Teen and Unplanned Pregnancy (USA 2009) popisuje výsledky o prevalenci sextingu mezi mladými uživateli internetu a mobilních telefonů. Výzkumu se zúčastnilo celkem 653 teenagerů ve věku 13–19 let a zjištěné výsledky ukázaly, že 38 % z nich odeslalo sexuálně laděné zprávy jiným lidem a 19 % nezletilých dále odeslalo své vlastní fotografie zachycující jejich obnažené tělo jiným osobám.
Prvním obsáhlejším výzkumem, který by se zabýval sdílením sexuálně laděných fotografií jiným uživatelům internetu, je Nebezpečí internetové komunikace II (2011), Nebezpečí internetové komunikace III (2012), jak uvádí Kopecký (2012).

2 ZÁVĚR

Rizikové chování v té nejobecnější rovinně je opravdu velice obsáhlým tématem, které přináší celou řadu úhlů pohledu, členění, možných příčin a možností řešení. Je jasné, že naprosté zamezení rizikovému chování respektive rizikovému sexuálnímu chování není možné. Můžeme pouze provádět různá preventivní opatření, která mohou alespoň snížit počet jedinců, kteří se chovají sexuálně rizikově. Dále pak vnímám jako podstatné sledovat aktuální trendy mezi mladými, jelikož nové trendy přináší i další nové možnosti rizikového chování moderní doby. Vždyť i sexting je poměrně mladým odvětím rizikového chování, které vzniklo ruku v ruce s vývojem moderních technologií a narůstajícím vlivem elektronické komunikace.

Použitá literatura

1. FISCHER, S., ŠKODA, J. Sociální patologie -- Závažné sociálně patologické jevy, příčiny, prevence, možnosti řešení, Vyd. 2., Praha: Grada., 2014, 232 s. 978-80-247-5046-0.
2. GULLONE, E.; MOORE, S. (2000): *Adolescent risk- taking and five- factor model of personality*. Journal of Adolescence, Vol. 23, pp. 393- 407. Retrieved 27. 2. 2009, from Science Direct diabase.
3. HERZER, Gernot. *Das Risikoverhalten von Jugendlichen: Fachtagung Jungen & Risiko – Rauschtrinken, Muskelsucht und Hungerwahn, Kulturzentrum PFL Oldenburg*. TU Braunschweig, 2011. Dostupné z: <http://www.jugendschutz-niedersachsen.de/wordpress/wp.
4. HOFBAUER, Břetislav. *Děti, mládež a volný čas*. Vyd. 1. Praha: Portál, 2004. 173 s. ISBN 80-7178-927-5.
5. KOPECKÝ, K., R. SZOTKOWSKI a V. KREJČÍ. Nebezpečí elektronické komunikace III. In: E-Bezpečí [online]. 2012. [cit. 2017-11-24]. Dostupné z: http://www.e-bezpeci.cz/index.php/kestazeni/cat_view/27-vyzkumne-zpravy.
6. LABÁTH, V.. *Riziková mládež: možnosti potenciálnych zmien*. Vyd. 1. Praha: Sociologické nakladatelství, 2001. 157 s. Studijní texty. sv. 8 sv.19. ISBN 80-85850-66-4.
7. Lenhart, A., Ling, R., Campbell, S. and Purcell, K. (2010) Teens and Mobile Phones: Text Messaging Explodes as Teens Embrace It as the Centerpiece of Their Communication Strategies with Friends. Pew Internet & American Life Project.
8. MACEK, P.. *Adolescence: psychologické a sociální charakteristiky dospívajících*. Vyd. 1. Praha: Portál, 1999. 207 s. ISBN 80-7178-348-X.

9. MATOUŠEK, O. a MATOUŠKOVÁ, A. *Mládež a delikvence: možné příčiny, struktura, programy prevence kriminality mládeže*. Vyd. 3., aktualiz. Praha: Portál, 2011. 336 s.ISBN 978-80-7367-825-8.
10. MIOVSKÝ, M. et al. *Primární prevence rizikového chování ve školství: [monografie]*. Vyd. 1. Praha: Sdružení SCAN, ©2010. 253 s. ISBN 978-80-87258-47-7.
11. Moore, L. R. Sexting in Neuropsychiatrie de l'Enfance et de l'Adolescence, *IACAPAP 2012 – 20th World congres* vol 60, 64-126 s.
12. MŠMT. *Koncepce rozvoje mládeže 20014 – 2020* [online]. 2014 [cit. 2017-08-21]. Dostupné z:<http://www.msmt.cz/file/33590?highlightWords=rizikov%C3%A9+chov%C3%A1n%C3%AD+ml%C3%A1de%C5%BEe>.
13. MŠMT. *Strategie primární prevence 2013-2018* [online]. Praha, 2013, [cit. 2017-08-11]. Dostupné z: <http://www.msmt.cz/file/28077?highlightWords=rizikov%C3%A9+chov%C3%A1n%C3%AD+ml%C3%A1de%C5%BEe>.
14. PÁVKOVÁ, J. Pedagogika volného času: teorie, praxe a perspektivy mimoškolní výchovy a zařízení volného času. Vyd. 1. Praha: Portál, 1999. 229 s. ISBN 80-7178-295-5.
15. SMOLÍK, J.. *Subkultury mládeže: uvedení do problematiky*. Vyd. 1. Praha: Grada, 2010. 281 s. ISBN 978-80-247-2907-7.
16. SOBOTKOVÁ, V. a kol. *Rizikové a antisociální chování v adolescenci*. Vyd. 1. Praha: Grada, 2014. 147 s. Psyché. ISBN 978-80-247-4042-3.
17. STREICHMAN, J. What is Sexting?. Examiner.com [online]. 2009 [cit. 2017- 11-02]. Dostupné z: http://www.examiner.com/article/what-is-sexting-2.
18. TRIMPOP R.r. M., *The Psychology of Risk TakingBehavior*, Volume 107, Advances in Psychology, 1st Edition, North Holland, 1994, **ISBN:** 9780080867618.
19. Wolak, J., Finkelhor, D., Mitchell, K. J. (2011). How Often Are Teens Arrested for Sexting? In Pediatrics, December 5. DOI: 10.1542/peds.2011-2242

Kontaktní údaje
Mgr. Tereza Kaláčková
Univerzita Palackého v Olomouci, Pedagogická fakulta
Žižkovo náměstí 5, 771 40 Olomouc
Tel: 777 989 971
email: t.kalackova@seznam.cz

MÍRA POROZUMĚNÍ TEXTU SOUVISÍ S ÚROVNÍ ČTENÁŘSKÝCH STRATEGIÍ ČTENÁŘE

THE LEVEL OF UNDERSTANDING OF TEXT IS RELATED TO THE LEVEL OF READING STRATEGIES OF THE READER

Dana Vicherková

Abstrakt

Příspěvek seznamuje s vybranými výstupy výzkumného šetření s názvem „Úroveň čtenářských strategií patnáctiletých žáků na konci základního vzdělávání“ realizovaného v rámci disertační práce autorky Mgr. D. Vicherkové, Ph.D. Text poukazuje na fakt, že přes existenci mnoha čtenářských metod, čtenářských aktivit a technik čtení, existuje mnoho patnáctiletých jedinců v Moravskoslezském kraji, kterým se nedaří čtení s porozuměním efektivně zvládnout.

Klíčová slova: *čtenářská gramotnost, čtenářské strategie, metakognice, metamotivace, čtenářská kultura a edukace*

Abstract

This article introduces selected outcomes of the research "Level of reading strategies of fifteen-years-old pupils at the end of elementary school" carried out by Mgr. Dana Vicherkova, Ph.D. in her dissertation thesis.

The text points out to the fact that despite existence of many reading methods, reading activities and techniques, there are many fifteen-years-old pupils in the Moravian-Silesian Region in the Czech Republic who do not manage to effectively handle reading with proper understanding.

Key words: *reading literacy, reading strategies, meta-cognition, meta-motivation, reading culture, education*

1 ČEŠTÍ ŽÁCI NEOVLÁDAJÍ JAZYKOVÉ DOVEDNOSTI V DOSTATEČNÉ MÍŘE

Výzkumné šetření D. Vicherkové (2017) předkládá podněty k diskuzi na téma, jakou má patnáctiletý žák Moravskoslezského kraje úroveň čtenářských strategií z pohledu metakognice a metamotivace a jaké faktory ovlivňují úroveň čtenářských strategií patnáctiletých žáků Moravskoslezského kraje.

Dle Zprávy Výzkumné agentury pro vzdělávání, kulturu a audiovizuální oblast z roku 2011 (EACEA), 2011) je zřejmé, že čeští žáci nedisponují dostatečně širokou škálou čtenářských dovedností a čtenářských strategií. Česká republika vykazuje zásadní problémy v čtenářské gramotnosti a patří tak k zemím s nejvýraznějšími problémy v oblasti čtenářské gramotnosti žáků základních škol z hlediska kvantitativního i kvalitativního výskytu čtenářských nedostatků, což vyplynulo z výstupu Lisabonské strategie ve vzdělávání, kulturu a audiovizuální oblast z roku 2011. Dle výzkumu PISA (2009) se Česká republika ve sledovaném stavu úrovně čtenářské gramotnosti vyskytla ve spodní třetině pomyslného žebříčku mezi zeměmi OECD (společně s dalšími zeměmi, např. Litvou, Tureckem, Ruskou federací, Rakouskem, Bulharskem, Brazílií a Indonésií). Další výzkum PISA bude realizován

v roce 2018, je tedy otázkou, jak patnáctiletí žáci České republiky v testování porozumění čtenému textu v mezinárodním srovnání obstojí.

2 ÚROVEŇ ČTENÁŘSKÝCH STRATEGIÍ PATNÁCTILETÝCH ŽÁKŮ NA KONCI ZÁKLADNÍHO VZDĚLÁVÁNÍ

Výzkumné šetření s názvem „Úroveň čtenářských strategií patnáctiletých žáků na konci základního vzdělávání“ bylo realizováno ve čtyřech fázích na vzorku patnáctiletých žáků základní školy nebo patnáctiletých žáků víceletého gymnázia v Moravskoslezském regionu (2016, 2017). Výzkum hledal odpověď na otázky, jak dokážou čeští patnáctiletí žáci uplatňovat dílčí aspekty čtenářské gramotnosti, resp. čtenářské strategie a jací činitelé mají vliv na úroveň čtenářských strategií cílového vzorku respondentů. Dle výzkumu PISA (2009) dosáhli žáci Karlovarského, Moravskoslezského, Ústeckého kraje výrazně horších výsledků, než by odpovídalo socioekonomickému zázemí kraje. Je zřejmé, že v Moravskoslezském kraji může mít přibližně třetina patnáctiletých žáků problémy v každodenním životě v důsledku nedostatečných čtenářských kompetencí. K plánovaným školským prioritám v Moravskoslezském regionu v období 2016 – 2021 patří zlepšit a podpořit čtenářskou gramotnost napříč vzděláváním, a to žáků i dospělé veřejnosti (např. pravidelným vzděláváním pedagogů v problematice výuky čtenářské gramotnosti, vytvořením podmínek pro personální a materiální zajištění konzultací pro žáky se specifickými potřebami v oblasti čtenářské gramotnosti apod.). V České republice se výzkumu porozumění textu žáků 2. stupně věnuje méně pozornosti, většina výzkumů je směřována k rozvoji počáteční čtenářské gramotnosti, dále na problémy žáků se čtením a na analýzu učebnic, případně didaktických textů z hlediska jejich didaktické obtížnosti a konstruktivní vybavenosti.
Je zřejmé, že v současném informačním věku sílí potřeba celoživotního rozvoje čtenářských strategií, a to čtenářskou kulturou, čtenářskými a kulturními zájmy a návyky, čtenářskou potřebou nového poznání, profilací čtenářsky motivovaných postojů, čtenářskou edukací.

2.1 Důležitost rozvoje čtenářských strategií

Čtenářské strategie jsou záměrné, zaměřené postupy, které kontrolují a modifikují čtenářovu snahu dekódovat text, porozumět slovům a vytvářet význam textu (Barry, 2002, s. 132). Úroveň čtenářských strategií žáků lze záměrně rozvíjet prací s různými texty, což podporuje žádoucí čtenářskou kontrolu vědomím, z čehož vyplývá, že úroveň čtenářských strategií souvisí s úrovní strategického čtení a výchovou strategického čtenáře. *Strategické čtení umožňuje kontrolu použití strategie a monitoring její efektivnosti. Strategický čtenář je schopen se flexibilně přizpůsobit novým situacím, které se během čtení textu vyskytnou* (Kucker, 2005, s. 55 in Švrčková, 2011, s. 55). V oblasti výchovy čtenáře tedy rozlišujeme strategické a dovednostní čtení.

2.2 Faktory ovlivňující čtenářskou gramotnost

Čtenářská gramotnost je víceúrovňový proces, který se vyznačuje různorodou aktivitou, dynamičností, dlouhodobým působením řady faktorů, které mají vliv na osvojování si čtenářských strategií jedinců.
V činitelské podobě lze sledovat objektivní faktory gramotnosti vynořující se ze sociálního, kulturního i ekonomického kontextu, tedy i z edukačního prostředí školy, rodiny, společnosti. K subjektivním faktorům lze zase přiřadit vrozené dispozice, znaky i zvláštnosti nervové soustavy, osobnostní projevy, předpoklady i zkušenosti získané ve všech fázích vývoje člověka.

2.3 Rodina – základna kulturních potřeb a zájmů

Rodina, která je charakteristická vyššími kulturními potřebami a zájmy, ovlivňuje pestrou škálu kulturních, komunikačních, esteticky determinovaných zájmů každého svého rodinného

člena (např. v oblasti kulturního dění, čtení, literatury, divadla, hudby, výtvarného umění, kreativity). Osobní příklad (čtenářský vzor), zájem rodičů na kvalitní přípravě žáka ovlivňuje zájem žáka o školu, motivaci k dosažení vyšší úrovně vzdělání.
Školní prostředí zásadně také ovlivňuje úroveň gramotnosti žáka. Čtenářská gramotnost je součástí funkční gramotnosti a patří k základním cílům vzdělávacího procesu. Tento cíl je naplňován ve všech vyučovacích předmětech rozvíjením klíčových kompetencí, které mají nepředmětný charakter. V České republice, stejně jako ve všech zemích EU, jsou klíčové kompetence součástí platných kurikulárních dokumentů. Na důležitost každodenní sociální interakce při práci s textem v autentických komunikačních situacích a v autentických situacích učení v každém věku upozorňuje více autorů, např. Schreiber (2005), Metelková Svobodová (2013) aj.
Na důležitost podílu žákova individuálního přístupu při stanovování cílů v rozvoji funkční gramotnosti upozorňuje Zápotočná (2013). Autorka zmiňuje potřebu rozvoje různých přístupů a modelů podporujících metakognitivní vývoj žáka, jeho čtenářskou gramotnost, a tedy funkční gramotnost, tzn. žákovu úroveň metaporozumění textu.

2.4 U generace patnáctiletých nelze sledovat zlepšující se tendenci v úrovni čtenářských strategií

Jednou z nejproblematičtějších aktuálních podoblastí funkční gramotnosti je rozvoj čtenářských strategií žáků základních škol. Patnáctiletí žáci dosahují již dlouhodobě v mezinárodních výzkumných šetřeních čtenářské gramotnosti podprůměrných výsledků a nelze sledovat zlepšující se tendence i v lokálně realizovaných výzkumných srovnáváních.

3 VYBRANÉ VÝSTUPY Z VÝZKUMNÉHO ŠETŘENÍ „ÚROVEŇ ČTENÁŘSKÝCH STRATEGIÍ PATNÁCTILETÝCH ŽÁKŮ MORAVSKOSLEZSKÉHO KRAJE NA KONCI ZÁKLADNÍHO VZDĚLÁVÁNÍ“

V našem výzkumu (v 1. fázi kvantitativně orientovaného výzkumného šetření) nás zajímalo, jak dokážou čeští patnáctiletí žáci v praktických dovednostech správně uplatňovat všechny dílčí aspekty čtenářské gramotnosti, především čtenářské strategie. Dále popisujeme současný stav řešení problematiky čtenářských strategií a jejich rozvoje v edukačním procesu.
První fáze výzkumného šetření se zúčastnilo 1999 respondentů, zvoleným výzkumným nástrojem byl dotazník pro žáky, který obsahoval 38 položek.
Cílem dotazníku bylo zjistit od respondentů např. následující informace:

- do jaké míry rozlišují respondenti rozdíl v chápání pojmů čtenářské strategie a čtenářské dovednosti,
- jaké druhy textů ve výuce ČJL používají,
- jaká je frekvence využití jednotlivých čtenářských strategií cílových respondentů,
- jaký je vztah čtenářských strategií, čtenářských zájmů žáků a jejich motivace ke čtení,
- jaký je vztah osvojených čtenářských strategií a školní úspěšnosti,
- jaké znalosti a dovednosti má patnáctiletý žák v oblasti metakognice a metamotivace (jako autoregulace).

Vyhodnocení odpovědí žáků vede k zamyšlení se, zda patnáctiletý čtenář používá sociokognitivní hledisko jako regulaci svých myšlenkových pochodů v procesu čtení i porozumění čtené informaci.

3.1 Vybrané závěry vyvozené z výzkumu

Mnozí patnáctiletí žáci mají problém s porozuměním pojmů čtenářské strategie a čtenářské dovednosti. Těžkosti s porozuměním v oblasti čtenářské terminologie lze dále sledovat u pojmů: druhy čtení, čtenářské zájmy a postoje, čtenářský vzor, čtenářská motivace.

Nejčastěji se ve školách používají tištěná média (učebnice a sešity), méně často virtuální informační zdroje (texty zveřejňované na sociálních sítích, texty reklamní povahy). Nedostatečně se ve škole pracuje s autentickými zdroji textů (denním tiskem).
Práce s nesouvislými texty se ve výuce ČJL uplatňuje v minimální míře, ve škole převažuje práce se souvislými texty, převážně uměleckými. K oblíbeným slohovým útvarům řadí žáci vypravování, úvahu a popis, k neoblíbeným útvarům pak kritiku, výklad, texty instruktážní povahy. Texty reklamní povahy (např. letáky) mají žáci ve výuce v oblibě.

3.2 Roste potřeba učit se kriticky myslet

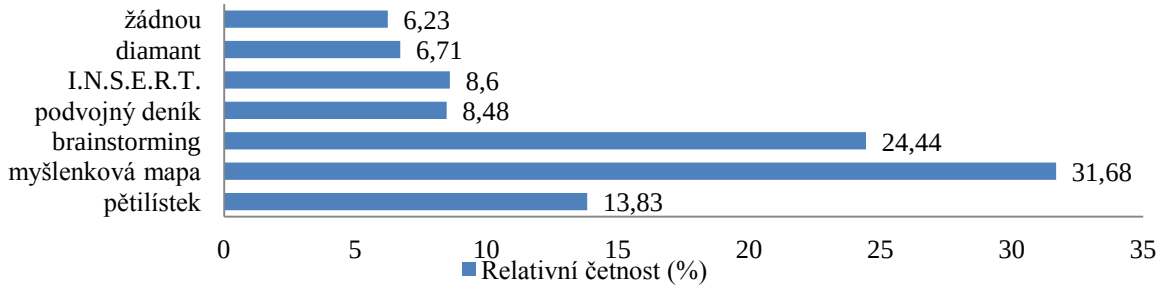
Ve výuce ČJL se méně často využívají metody kritického myšlení. Žáci nejčastěji vyhledávají informace, méně často informace zpracovávají a hodnotí. Alarmujícím zjištěním je, že žáci velmi často pracují s izolovanými fakty, méně často hledají souvislosti mezi informacemi z přečteného textu a každodenními životními situacemi. Výuka ve školách by měla posílit syntetizující činnosti, které vyžadují zpracování vybraných informací po stránce formální i obsahové.

Tabulka 1: Znalost metod kritického myšlení

Metoda	pol.	Četnost	Relativní četnost (%)
pětilístek	14.1	344	13,83
myšlenková mapa	14.2	788	31,68
brainstorming	14.3	608	24,44
podvojný deník	14.4	211	8,48
I.N.S.E.R.T.	14.5	214	8,6
diamant	14.6	167	6,71
žádnou	14.7	155	6,23
∑		1745	100

(Vicherková, 2016a, s. 119)

Graf 1: Znalost metod kritického myšlení



(Vicherková, 2016a, s. 119)

Ve školách se stále klade důraz na pamětní zvládnutí textu. Žáci tvrdí, že k porozumění čtené informaci dochází raději sami než s pomocí učitele.
Konkrétní vyhledávání informací je silnou stránkou patnáctiletých žáků, avšak slabinou se jeví práce s vícerými informačními zdroji. Žáci méně často pracují se strukturací textu, hůře chápou podstatu soudržnosti textu a vnitřní provázanost textu (kohezi a koherenci textu). Roste potřeba učit se pracovat metodami předvídání informací, vyvozováním nových poznatků a přemýšlením o nich. Tradiční metody a organizační formy práce mají otevírat

cestu dalším edukačním metodám směřujícím k aktivizaci čtenářů a komplexní čtenářské kompetentnosti, čtenářské kultuře.
Pozitivním zjištěním je, že si žáci ve výuce ČJL mohou velmi často sami vybírat texty, se kterými budou pracovat, což je zřetelný posun v rozdělení kompetencí s ohledem na měnící se nazírání role učitele a žáka v edukačním procesu. Více než čtvrtina respondentů považuje za svůj vzor matku, dále pak kamaráda a babičku a učitele.

3.3 Je frekvence čtenářských aktivit ve škole dostačující?

Aktivita věnovaná čtení je do výuky nejčastěji zařazena méně než 3x týdně, což považujeme za nízkou frekvenci čtenářských aktivit pro rozvoj čtenářských strategií. Nejčastěji přečtou patnáctiletí žáci za 1 rok 1-5 knih.

„*V tomto kontextu se nabízí možnost diskutovat o vymezení souboru požadavků na četbu žáků základní školy obdobným způsobem, který byl uplatněn v Katalogu požadavků k maturitní zkoušce z českého jazyka a literatury a který určuje minimální počet přečtených literárních děl různých žánrů a období literárního vývoje*." (Vicherková, 2016a, s. 303)

K zamyšlení lze považovat fakt, že nejčastěji žáci odpověděli na otázku, kolik času tráví četbou pro potěšení tak, že pro potěšení nečtou vůbec. Do této odpovědi se zřetelně promítá nedostatečná motivace žáka ke čtení z vlastního zájmu, pro radost, relaxaci, pro získání nových informací či z jiných důvodů souvisejících např. s utvářením životních hodnot, postojů, představ, resp. nedostatečný vliv základní školy na formování čtenářství žáků.
Pozoruhodným zjištěním je, že mezinárodní výzkumy čtenářské gramotnosti PISA (2009) vyhodnotily tuto skupinu patnáctiletých žáků jako podprůměrné čtenáře. Námi sledovaní respondenti se však považují za čtenáře průměrné. Je tedy otázkou, zda se potvrdí, nebo vyvrátí skutečnost v dalším šetření plánovaném na rok 2018.
Přestože bylo výzkumné šetření úrovně čtenářských strategií patnáctiletých žáků realizováno pouze na školách Moravskoslezského kraje, předpokládáme, že některé získané poznatky a zkušenosti lze zobecnit a využít k podnětné diskuzi o možnostech i limitech rozvoje čtenářské gramotnosti žáků základních škol, o edukaci učitelů v námi prezentované problémové oblasti výchovy čtenáře, o propojení státní i regionální vzdělávací politiky, obratu v roli učitele a žáka v edukačním procesu, o celoživotním učení a celoživotní potřebě a právu číst a o dalších otázkách, které s problematikou čtenářské gramotnosti blízce souvisejí.

4 KNIHA ZŮSTÁVÁ PRO GENERACI PATNÁCTILETÝCH DŮLEŽITÝM ZDROJEM INFORMACÍ

Aktuální reprezentativní výzkum úrovně čtenářských strategií patnáctiletých žáků v Moravskoslezském kraji potvrdil fakt, že se výuce a rozvoji čtenářských strategií nevěnuje pozornost komplexně. Je však zřejmé, že za klíčové čtenářské strategie, které mají vliv na úroveň čtenářské gramotnosti, považují patnáctiletí žáci práci se strukturou textu a také kladení pomocných otázek při práci s textem. Potvrdil se také fakt, že vzájemnou diskuzí o přečteném textu ve škole i doma si vytváří žáci předpoklady k vytvoření čtenářského vzoru v edukačním nebo domácím prostředí. Pozitivním zjištěním je, že i v současnosti je kniha generací patnáctiletých žáků považována za jeden z důležitých zdrojů informací, které vedou k určitému nezbytnému poznání.
Dnešní výuka ve škole by měla směřovat k rozvoji pochopení významu slov, vět, souvětí, porozumění textu jako celku. Při práci s textem je třeba umět informace nejen vyhledat, ale také je porovnat, zpracovat, vyhodnotit. Dále je vhodné pracovat se širokou škálou čtenářských strategií, věnovat se kohezi i koherenci textu, logické argumentaci, komunikaci a pěstování čtenářské kultury, a to napříč věkem.

„*Cílem 1. fáze dotazníkového výzkumu nebylo ověřit kognitivní vědomosti a znalosti žáka, ale zajímalo nás, jakou má patnáctiletý žák z hlediska autoregulace úroveň znalostí metakognitivních a metamotivačních.*“ (Vicherková, 2016a, s. 304)

Národní strategie podpory základních gramotností v základním vzdělávání (součást tzv. Strategie 2020) dokládá nadčasovost a aktuálnost potřeby rozvíjet čtenářskou gramotnost i čtenářské strategie.

V dalších fázích empirické části výzkumného šetření nazíráme na zkoumaný problém *úrovně čtenářských strategií patnáctiletých žáků na konci období základního vzdělávání* optikou smíšeného designu výzkumu, a to dotazníkovým šetřením učitelů, ve kterém se zajímáme, jakými metodami a formami učitelé vyučují, s jakými druhy textů pracují tak, aby efektivně rozvíjeli čtenářské strategie žáků. Třetí část výzkumu se zaměřuje na strukturované pozorování vybrané výuky ČJL v Moravskoslezském kraji. Jednotlivá pozorování vychází z popisu jako příklady dobré a možné praxe na základě výzkumného přístupu vícepřípadové studie. Čtvrtá část výzkumu se zaměřuje strukturovaným rozhovorem s patnáctiletými žáky Moravskoslezského kraje na popis, analýzu úrovně čtenářských strategií vybraných žáků, dále na popis problematické oblasti při práci s textem a jeho porozuměním.

Výzkumné šetření bylo podpořeno grantovým projektem IGA PdF (2016 021), řešeného v rámci specifického výzkumu na Katedře ČJL Pedagogické fakulty Univerzity Palackého v Olomouci.

Použitá literatura

1. BARRY, A. L., 2002. Reading strategies teachers say they use. *Journal of adolescent and adult literacy*, 46(2). ISSN 1081-3004.
2. METELKOVÁ SVOBODOVÁ, Radana, 2013. *Formování čtenářské gramotnosti v prostředí školy se zaměřením na žáky mladšího školního věku.* Ostrava: Oftis. ISBN 978-80-7464-451-1.
3. Odborný panel ke čtenářské gramotnosti VÚP v Praze. *Co zjišťují testy čtenářské gramotnosti PISA?* Dostupné z: http://clanky.rvp.cz/clanek/s/z/12467/uvod-ke-komentarum-k-vybranym-uloham-pisa.html/.
4. OECD, 2013. *PISA in focus: Could learning strategies reduce the performance gap between advantaged and disadvantaged students?* Dostupné z: http://www.oecd.org/pisa/pisaproducts/pisainfocus/pisa%20in%20focus%20n30%20%28eng%29--Final.pdf.
5. OECD, 2014. *PISA 2012 results in focus. What 15-year-old know and what they can do with what they know.* Paris: OECD.
6. ŠVRČKOVÁ, Marie, 2011. *Kvalita počáteční čtenářské gramotnosti: výzkumná analýza a popis soudobého stavu*. Ostrava: Ostravská univerzita v Ostravě, Pedagogická fakulta. ISBN 978-80-7464-020-9.
7. VICHERKOVÁ, D. Úroveň čtenářských strategií žáků na konci základního vzdělávání. In: *Úroveň čtenářských strategií patnáctiletých žáků na konci základního vzdělávání.* Disertační práce. Olomouc: Univerzita Palackého v Olomouci, 2016a. Vedoucí práce Řeřichová V.
8. VICHERKOVÁ, D. Úroveň čtenářských strategií patnáctiletých žáků na konci základního vzdělávání. In: *Úroveň čtenářských strategií patnáctiletých žáků na konci základního vzdělávání.* ŘEŘICHOVÁ, V. a kol. Monografie. Olomouc: Univerzita Palackého v Olomouci, 2016b, s. 77-171. ISBN 978-80-244-5061-2.
9. VICHERKOVÁ, D., CHUDÝ, Š. Application of Selected Outcomer from PISA and PIAAC Researches to Czech Curriculum and Reading Education. *Odborný článek v časopise Universal Journal of Educational Research 4(9).* Alhambra: Horizont Research Publishing, 2016. DOI: 10.13189/ujer.2016.040910, ISSN: 2332-3213.

10. VICHERKOVÁ, D., ŘEŘICHOVÁ V. Čtenářská gramotnost, čtenářské kompetence a čtenářské strategie v kontextu současného českého kurikula. *Nezávislý odborný časopis pro interdisciplinární výzkum v pedagogice e-PEDAGOGIUM*. Olomouc: Pedagogická fakulta Univerzity Palackého v Olomouci, III/2016, s. 15-24. ISSN: 1213-7499. Dostupné z: http://old.pdf.upol.cz/fileadmin/user_upload/PdF/e-pedagogium/2016/e-Pedagogium_3-2016_online.pdf.
11. ZÁPOTOČNÁ, Olga, 2013. *Metakognitívne procesy v čítaní, učení a vzdelávaní.* Bratislava: TYPI Universitatis Tyrnaviensis – Veda, vyd. SAV. ISBN 978-80-8082-742-7.

Kontaktní údaje

Mgr. Dana Vicherková, Ph.D.
Ostravská univerzita, PdF, Katedra pedagogiky a andragogiky
Fr. Šrámka 3, 709 00 Ostrava
Tel: +420 736 409 875
email: dana.vicherkova@seznam.cz

NEZAMĚSTNANOST ABSOLVENTŮ STŘEDNÍCH ŠKOL V SOUVISLOSTI S RODINNÝM ZÁZEMÍM

UNEMPLOYED GRADUATES OF SECONDARY SCHOOLS IN CONNECTION WITH FAMILY BACKGROUNDS

Marie Borová

Abstrakt

Nárůst nezaměstnanosti mladých lidí je klíčovým problémem současného trhu práce. Nezaměstnanost mladé generace je aktuálním problémem v celé Evropské Unii. Projevuje se jako jeden z nejzávažnějších ekonomických problémů, který zasahuje téměř do všech stránek života nezaměstnaného jednotlivce, ale i jeho blízkých. Nejvíc ohroženou skupinou na trhu práce je nezaměstnaná mladá generace, která ukončila vzdělávání a hledá si své první zaměstnání. Prezentovaný příspěvek je zaměřen na rodinné zázemí nezaměstnaných absolventů středních škol a jeho vliv na samotnou motivaci najít si své první zaměstnání.

Klíčová slova: *trh práce, příčiny nezaměstnanosti, rodina*

Abstract

Rise in youth unemployment is one of the key challenges of the current labor market. Unemployment among young generation is the current problems throughout the European Union. Manifests itself as one of the most serious economic problems, which contains almost every aspect of the unemployed individual but also his loved ones. The most vulnerable groups in the labor market, unemployed young generation who has completed training and seeking their first job. The present post is focused on the family backgrounds of unemployment graduates of secondary scholls and his impact on the motivation to have a job.

Key words: *labor market, causes of unemployment, family*

1 RODINNÉ PROSTŘEDÍ

Při charakteristice rodinného prostředí je možné vycházet z tvrzení autorky Bakošové (2007), že rodinné prostředí tvoří její členové, soubor podmínek, realizace funkcí a uplatňování různých stylů výchovy. Toto prostředí může ovlivňovat jednotlivce bez cíleného záměru. Kraus (2001) uvádí: „*prostředí spontánně ovlivňuje mladého člověka v zásadě pozitivně ve smyslu společensky žádoucích norem, vzorů chování, nebo negativně, v rozporu s nimi“.* Uvedené se týká utváření osobnosti, navazování vztahů, přijímání nových poznatků, vědomostí a jejich praktického uplatnění, schopnost vědět se o sebe postarat, být samostatný, mít určený svůj osobní cíl, správně se rozhodovat, kriticky myslet, získat žádoucí pracovní návyky, být disciplinovaný, vidět příležitost a využít ji ve svůj prospěch.

1.1 Rodinné prostředí a jeho vliv na pracovní motivaci mladých lidí

Na základě výzkumů Bakošové (2007) můžeme definovat podněty, které se projevují v konkrétních podmínkách rodinného prostředí.

- *demografické*: velikost rodiny, zaměstnání rodičů, samotná povaha jejich zaměstnání, věk rodičů,
- *materiální*: příjmy a výdaje rodiny, počet aktivně zaměstnaných členů rodiny, přítomnost člena se zdravotním postižením, výskyt různých závislostí v rodině,

- *psychologické*: atmosféra v rodině, vztahy mezi rodiči, vztahy mezi rodiči a dětmi, vztahy mezi sourozenci,
- *kulturní*: vzdělání rodičů, způsob života rodiny, preferovaný životní styl, uplatňované hodnoty, trávení volného času.

Období po skončení střední školy vzhledem k věku absolventů můžeme podle některých autorů zařadit mezi období adolescence (Havighurst, in: Havlík, Koťa, 2002, Macek, 2003). Je to věk mezi 18. až 20. rokem života. Je to velice vážné životní období, ve kterém dochází k vytváření ustálených vztahů s rodiči, s kamarády, sourozenci. Je to důležité období i pro formování vztahů k opačnému pohlaví, k sexualitě, partnerství. Je to období hledání identity, kdy se proces sebeuvědomování mění na proces soběstačnosti. Hlavním problémem projevujícím se v chování mladého člověka je nutnost přizpůsobení se. Důležitou úlohu sehrává především rodinná výchova (Turček, 2008).

Rodina je pro absolventa místem poskytnutí emoční jistoty, bezpečí, útočiště v ohrožení. Ze strany rodičů je velmi potřebná zhovívavost, podpora a porozumění. Mladý člověk musí být vlivem rodiny připraven na postupné osamostatňování, hledání vlastní životní cesty. V případech, kdy se nezdaří uskutečnit úplnou nezávislost, dochází k mnohým problémům. Láska k rodičům se ze strany mladého člověka může změnit na nenávist a pohrdání. Ale za normálních a přijatelných okolností se v tomto období pozitivní vztah k rodičům nezmění a udrží se v přijatelné rovině. I když dochází k změně chování, morální postoje a hodnoty rodiny si dospívající člověk zachovává (Farková, 2009).

Podle Farkové (2009) v období adolescence dochází k několika rozporům:

- rozpor mezi fyzickou a sociální zralostí – je viditelný především v oblasti sexuálních aktivit. Dospívající mladý člověk je po fyzické stránce zralý, ale uzavření manželského svazku odkládá na pozdější období. Z tohoto důvodu dochází k nárůstu počtu párů, které žijí mimomanželský život a nemají snahu si založit vlastní rodinu.
- rozpor mezi rolí a statusem – mladí lidé jsou na jedné straně téměř fyzicky zralí a okolí od nich očekává dospělé chování, ale na straně druhé mají tito mladí lidé velice nízký sociální status. Při vymezování rolí adolescentů se častokrát vychází ze zaměření na jejich budoucnost. Ale právě toto je pro ně zdrojem frustrace.
- rozpor mezi hodnotami rodičů a dospívajících mladých lidí, generační rozdíly. Z pohledu adolescentů působí hodnoty a postoje jako překážka pokroku. Důležitý význam sehrává tolerance a porozumění na obou stranách.
- rozpor mezi hodnotami rodiny a společnosti. Jestliže jsou pravidla chování a společenské normy dosahovány prostřednictvím síly a moci, vyvolávají odpor. Právě tak brání vývoj adolescenta k morálnímu chování.

V kontextu výzkumu je potřebné se zmínit o rizikových faktorech rodiny, které ovlivňují nežádoucí projevy chování absolventa střední školy, které souvisí s délkou jeho nezaměstnanosti, se samotnou schopností najít si práci a vůbec být motivován pracovat. Hopf (2009) mezi tyto faktory řadí:

- dědičnost,
- základní vzdělání rodičů jako nejvyšší dosáhnutý stupeň vzdělání,
- nedostatečnou péči rodičů,
- problémy s alkoholem nebo jinou návykovou látkou u některého z rodičů,
- nevyvážený životní styl rodičů,
- rodinné konflikty,
- duševní problém některého z rodičů,
- nezaměstnanost a chudoba,
- sexuální zneužívaní, donucování nebo týrání mladého člověka v rodině.

V současnosti jsme často svědky negativního působení rodiny bez ohledu na socioekonomický status rodiny nebo společenské postavení rodičů. Samotná existence rodiny musí čelit mnohým problémům, které plynou z nároků a podmínek společenského života a ty často nedovolují věnovat se výchově dětí intenzivně a soustředit se na podstatné věci. Příčiny tohoto vývoje můžou mít kořeny v oslabování tradiční rodiny. Můžou být důsledkem změn v hodnotovém systému a změn norem a postojů týkajících se osobních vztahů, rodiny a reprodukčního chování. Mění se tak i životní styl rodiny, který má negativní dopad na mladého člověka. Dochází k poruchám a destabilizaci rodinného prostředí, přičemž je ovlivněna funkčnost a stabilita rodinného prostředí, ve kterém adolescenti přijímají základy své společenské socializace. Osobnostní profil adolescentů překračujících právní i společenské normy naznačuje, že kořeny poruch emociálního a sociálního vývinu sahají do dětství, tkví v nedostatečném rodinném zázemí, v chybné výchově, která ignoruje základní požadavky dobrých mezilidských vztahů (Flimmel, Bullová, 2012).

1.2 Projekt výzkumu

a) *cíl výzkumu*: určit, zda se vybrané rizikové faktory rodinného prostředí u nezaměstnaných absolventů vyskytují a mohou se tak podílet jako možná příčina na jejich nezaměstnanosti
b) *vymezení předmětu a objektu výzkumu*:
   předmět výzkumu: vybrané rizikové faktory rodiny (užívání jakékoliv návykové látky některého z rodičů, projevy násilí v rodině)
   objekt výzkumu: evidovaní absolventi středních škol Žilinského samosprávního kraje, konkrétně z okresů Dolný Kubín, Námestovo, Tvrdošín.

Na stránce Ministerstva školství, vědy, výzkumu a sportu Slovenské republiky jsou zveřejněny statistické přehledy o nezaměstnaných absolventech středních škol. V přehledech byli použité zdroje dat o vývoji počtu nezaměstnaných, které shromažďuje Ústředí práce, sociálních věcí a rodiny. Uvedené údaje vychází ze statistických údajů o absolventech středních škol z Centra vědecko-technických informací SR. Nejnovější statistické údaje jsou vykazovány za období od září 2016 do května 2017.

Použité zkratky v tabulce č. 1:
Absolventi – absolventi škol za poslední dva roky (2015 a 2016)
NA – nezaměstnaní absolventi
AMN – absolventská míra nezaměstnanosti (výpočet: NA/absolventi)

Tabulka č. 1: Počty vybraných evidovaných nezaměstnaných absolventů středních škol

Název školy	*Absolventi 2015+2016*	*Nezaměstnaní absolventi 9/2016*	*AMN (v %) 9/2016*	*Nezaměstnaní absolventi 5/2017*	*AMN (v %) 5/2017*
Stredná odborná škola; Pelhřimovská 1186/10, Dolný Kubín, 02680	313	65	20,8%	28	8,9%
Spojená škola-SOŠ tech.; Hattalova 471, Nižná, 02743	310	57	18,4%	20	6,5%
Obchodná akadémia; Radlinského 1725/55, Dolný Kubín, 02636	200	29	14,5%	19	9,5%
SOŠ technická; Komenského 496/37, Námestovo, 02901	364	49	13,5%	17	4,7%
Stredná odborná škola; Hattalova 968/33, Námestovo, 02901	210	40	19,0%	17	8,1%
Gymnázium A. Bernoláka; Mieru 307/23, Námestovo, 02901	440	17	3,9%	13	3,0%
Gymnázium P.O.Hviezdos.; Hviezdoslavovo nám. 18, Dolný Kubín,	235	11	4,7%	11	4,7%

02624					
Spojená škola-SPŠ; Sídl. Medvedzie I. 133/1, Tvrdošín, 02744	242	26	10,7%	10	4,1%
Súkromná SOŠ; Slanická osada 2178, Námestovo, 02901	196	26	13,3%	9	4,6%
SOŠ polytechnická; Jelšavská 404, Dolný Kubín, 02601	164	19	11,6%	8	4,9%
Gymnázium M. Hattalu; Železničiarov 278, Trstená, 02801	287	12	4,2%	7	2,4%
SOŠ lesnícka; Medvedzie 135, Tvrdošín, 02744	130	21	16,2%	5	3,8%
Súkr. SOŠ podnikania; Slanická osada 2178, Námestovo, 02901	12	12	100,0%	5	41,7%
Súkromná SOŠ; SNP 1202/14, Dolný Kubín, 02601	55	11	20,0%	5	9,1%
Spojená škola-HA; Slanická Osada, Námestovo, 02901	100	11	11,0%	5	5,0%
Gymnázium; Školská 837, Tvrdošín, 02744	96	8	8,3%	4	4,2%
Stredná zdrav. škola; M. Hattalu 2149, Dolný Kubín, 02601	108	4	3,7%	2	1,9%
Cirkevná SŠ - gymnázium; Okružná 2026/25, Dolný Kubín, 02601	24	3	12,5%	0	0,0%
Súkromné gymnázium; Nemocničná 2, Dolný Kubín, 02601	38	1	2,6%	0	0,0%
Gymnázium pri Cirk.SŠ; Okružná 2026/25, Dolný Kubín, 02601	15	0	0,0%	0	0,0%

Zdroj: UPSVAR a CVTI SR, vlastní spracování

Pro účely výzkumu byl použitý základní soubor evidovaných absolventů s počtem 185 k 05/2017 z tabulky č. 1.
Členění základního souboru v absolutních a relativních početnostech uvádíme v přehledné tabulce č. 2.

Tabulka č. 2: Absolutní a relativní početnosti základního souboru

Okres	Evidovaní absolventi 05/2017 – absolutní početnosti (AP)	Relativní početnosti (RP) v %
Dolný Kubín	73	39,46
Tvrdošín	46	24,86
Námestovo	66	35,68
Spolu	**185**	**100,00**

Zdroj: vlastní zpracování

Výběrový soubor tvořilo celkem 160 oslovených respondentů z okresů Dolný Kubín, Tvrdošín, Námestovo. Ze základního souboru 185 evidovaných nezaměstnaných absolventů se výzkumu zúčastnilo a teda výběrový soubor tvořilo 160 respondentů, co je 86,49% základního souboru. Členění v absolutních a relativních početnostech uvádíme v přehledné tabulce č. 3

Tabulka č. 3: Absolutní a relativní početnosti výběrového souboru

Okres	Evidovaní absolventi zapojení do výzkumu – absolutní početnosti (AP)	Relativní početnosti (RP) v %
Dolný Kubín	65	40,63
Tvrdošín	33	20,63
Námestovo	62	38,74

Spolu	160	100,00

Zdroj: vlastní zpracování

c) *kategorie výzkumu*: typ rodiny, pracovní status rodiny, vzdělání rodičů typ rodiny:

- úplná rodina (manželský svazek),
- partnerský vztah (otec s partnerkou nebo matka s partnerem),
- jen jeden rodič (jen otec nebo jen matka),

pracovní status rodiny:

- rodič (otec, matka) – zaměstnaný, nezaměstnaný.

vzdělání rodičů:

- základní vzdělání,
- střední odborné vzdělání,
- úplné střední odborné vzdělání,
- vysokoškolské vzdělání.

d) metoda výzkumu

Pro získání důležitých údajů byla zvolena dotazníková metoda. Osobním setkáním s nezaměstnanými absolventy středních škol při administraci dotazníků byla zabezpečena jejich 100% návratnost. Všichni respondenti odevzdávali dotazníky anonymně do připravené schránky.

1.3 Prezentace výsledků výzkumu u nezaměstnaných absolventů středních škol v souvislosti s výskytem rizikových faktorů v rodině

Pro účely výzkumu byly určeny tři rizikové faktory rodiny: užívání jakékoliv návykové látky některého z rodičů, projevy násilí v rodině.

Působení vybraných rizikových faktorů bylo zkoumáno v kategoriích: typ rodiny, zaměstnanost rodičů, vzdělání rodičů.

Získané skutečnosti - hodnoty byly uvedeny v tabulkách za každý faktor individuálně v členění podle zkoumaných kategorií, přičemž hodnoty v každé kategorii jsou členěny ve dvou stloupcích, absolutní početnosti a relativní početnosti. Řádek spolu prezentuje součet absolutních početností a jejich podíl v procentech na celkovém počtu respondentů. Jádro tabulek tvoří odpovědě respondentů (příslušná odpověď, vyjádření skutečnosti). Sloupec spolu prezentuje součet absolutních početností a jejich podíl v procentech na celkovém počtu respondentů.

a) kategorie podle typu rodiny – v příslušném sloupci v členění absolutní početnosti, relativní početnosti v %

Tabulka č. 4: Užívání jakékoliv návykové látky rodičem – typ rodiny

Návyková látka, rodič	Úplná rodina		Rodič a partner		Jen jeden rodič		Spolu	
Nikdy	**12**	26,67	**5**	11,11	**28**	62,22	**45**	28,13
Jeden z rodičů	**75**	72,82	**23**	22,33	**5**	4,85	**103**	64,37
Oba rodiče	**8**	66,67	**3**	25,00	**1**	8,33	**12**	1,87
Spolu	**95**	59,38	**31**	19,38	**34**	21,24	**160**	100,00

Zdroj: vlastní spracování

Tabulka č. 5: Projevy násilí v rodině – typ rodiny

Násilí v rodině	Úplná rodina		Rodič a partner		Jen jeden rodič		Spolu	
Nikdy	**8**	42,11	**6**	31,58	**5**	26,32	**19**	11,87
Projevuje se mezi rodiči	**108**	81,20	**25**	18,80	**0**	0,00	**133**	83,13
Bylo použito vůči mě	**3**	37,50	**3**	37,50	**2**	25,00	**8**	5,00
Spolu	**119**	74,38	**34**	21,25	**7**	4,37	**160**	100,00

Zdroj: vlastní spracování

Z odpovědí respondentů – nezaměstnaných absolventů středních škol je zřejmé, že v kategorii odpovědí podle typu rodiny se užívání jakékoliv návykové látky vyskytuje nejvíc v úplných rodinách, kde 75 respondentů (78,20%) uvedlo, že určitě jeden z rodičů užívá návykovou látku, 23 respondentů (22,33%) uvedlo, že návykovou látku užívá jeden rodič v rodině, kde se na výchově podílí i jeden partner. Až 108 respondentů žijících v úplné rodině (81,20%) uvedlo, že se násilí projevuje mezi rodiči, na otázku projevů násilí v rodině odpovědělo 25 respondetů (18,80%) žijících s jedním rodičem a jeho partnerem.

b) podle zaměstnání rodičů – v příslušném sloupci v členění absolutní početnosti, relativní početnosti v %

Tabuľka č. 6: Užívání jakékoliv návykové látky rodičem – zaměstnání rodičů

Návyková látka - rodič	Rodiče				Spolu	
	zaměstnaní		nezaměstnaní			
Nikdy	**42**	89,36	**5**	10,64	**47**	29,38
Jeden z rodičů	**42**	40,78	**61**	59,22	**103**	64,37
Oba rodiče	**2**	20,00	**8**	80,00	**10**	6,25
Spolu	**86**	53,75	**74**	46,25	**160**	100,00

Zdroj: vlastní spracování

Tabulka č. 7: Projevy násilí v rodině – zaměstnání rodičů

Projevy násilí	Rodiče				Spolu	
	zaměstnaní		nezaměstnaní			
Nikdy	**15**	78,95	**4**	21,05	**19**	11,87
Projevuje se mezi rodiči	**14**	10,53	**119**	89,47	**133**	83,13
Bylo použito vůči mě	**2**	25,00	**6**	75,00	**8**	5,00
Spolu	**31**	19,38	**129**	80,62	**160,00**	100,00

Zdroj: vlastní spracování

Z odpovědí respondentů v kategorii podle zaměstnání rodičů je zřejmé, že návykové látky jsou ve větší míře užívány v rodině, kde je minimálně jeden nezaměstnaný rodič – 61 respondentů (59,22%), ale svůj podíl na užívání návykové látky má jeden z rodičů i v rodině, kde jsou oba rodiče zaměstnáni – 42 respondentů (40,78%). Taktéž násilí se ve velké míře projevuje mezi rodiči v rodině, kde je minimálně jeden rodič nezaměstnaný – až 119 respondentů (89,47%).

c) podle vzdělání rodičů – v příslušném sloupci v členění absolutní početnosti, relativní početnosti v %

Tabuľka č. 8: Užívání jakékoliv návykové látky – vzdělání rodičů

Návyková látka - rodič	**Základní vzdělání**		**Střední odborné**		**Úplné střední odborné**		**VŠ**		**Spolu**	
Nikdy	**0**	0,00	**0**	0,00	**8**	17,02	**39**	82,98	**47**	29,38
Jeden z rodičů	**29**	28,16	**29**	28,16	**43**	41,75	**2**	1,94	**103**	64,37
Oba rodiče	**6**	60,00	**3**	30,00	**1**	10,00	**0,00**	0,00	**10**	6,25
Spolu	**35**	21,88	**32**	20,00	**52**	32,50	**41**	25,63	**160,00**	100,00

Zdroj: vlastní spracování

Tabuľka č. 9: Projevy násilí v rodině – vzdělání rodičů

Projevy násilí	**Základní vzdělání**		**Střední odborné**		**Úplné střední odborné**		**VŠ**		**Spolu**	
Nikdy	**5**	26,32	**3**	15,79	**11**	57,89	**0**	0,00	**19**	11,88
Projevuje se mezi rodiči	**32**	24,06	**68**	51,13	**28**	21,05	**5**	3,76	**133**	83,12
Bylo použito vůči mě	**4**	50,00	**4**	50,00	**0**	0,00	**0**	0,00	**8**	5,00
Spolu	**41**	25,63	**75**	46,86	**39**	24,38	**5**	3,13	**160**	0,00

Zdroj: vlastní spracování

V kategorii vzdělání rodičů odpovědělo na problematiku užívání jakékoliv návykové látky 43 respondentů (41,75%) jedním rodičem v rodinách, kde je nejvyšší vzdělání jednoho z rodičů úplné střední odborné, 29 respondentů (28,16) odpovědělo v skupině, kde nejvyšší vzdělání střední odborné a základní vzdělání. U těchto tří typů vzdělání odpověděl nejvyšší počet respondentů na existenci projevů násilí mezi rodiči - 68 respondentů (51,13%) v rodině, kde je nejvyšší vzdělání střední odborné, 32 respondentů (24,06%) v rodině se základním vzděláním a 28 respondentů (21,05%) v rodině s úplným středním odborným vzděláním.

2 ZÁVĚR

Mladí lidé, kteří ukončili své vzdělávání na střední odborné škole v současnosti často nejsou schopni odhadnout, na co mají schopnosti, co je zajímá a pro výběr konkrétního povolání nebo snad dalšího studia se rozhodují s velkými těžkostmi. Poskytnout jim odbornou pomoc neznamená rozhodovat za ně, ale poskytnou jim ve správném čase co nejvíc adekvátních informací, aby mohli sami určit své hranice a získat kompetence pro využití příležitostí na pracovním trhu. Jak vyplynulo z uvedeného výzkumu, nezaměstnaní absolventi středních škol pochází z rodin, kde jsou svědky užívání návykových látek u svých rodičů, ale také projevů

násilí mezi rodiči navzájem. Cíl tohto výskumu byl splněn. U nezaměstnaných absolventů se tyto faktory v rodinném prostředí vyskytují a můžou být považovány za faktory ovlivňující nezaměstnanost absolventů. Většina rodičů těchto nezaměstnaných absolventů dosáhla jen základního, středního nebo úplného středního vzdělání. Z časového hlediska je zde namístě předpoklad, že se jedná o dlouhodobé působení tohoto rodinného prostředí a otázkou je, jak tento mladý člověk dokáže sám zvládnout tyto negativní projevy rodinného prostředí a uvědomit si individuální potřebu ale i očekávání společnosti aktivně vstoupit na trh práce, získávat vhodné pracovní návyky i zkušenosti, být výdělečně činný a sám přispět ke svému osamostatnění. Je zde určitě potřebná odborná sociální pomoc. K úzké součinnosti příslušných institucí a odborné pomoci by mělo dojít už během studia, kdy je možné pozorovat varovné signály například v chování žáka a kdy je možná aktivní spolupráce mezi rodiči, žáky a například odborným školským pedagogem, psychologem nebo sociálním pracovníkem.

Použitá literatura

1. BAKOŠOVÁ, E., 2007. *Základy sociológie pre právnikov.* Bratislava: Právnická fakulta UK. 161 s.ISBN 80-7160-119-5.
2. FARKOVÁ, M. 2009. *Dospělost a její variabilita.* Praha: Grada Publishing, 2009. 136 s. ISBN 978-80-247-2480-5.
3. FLIMMEL, K., BULLOVÁ, J. 2004. Faktory ovplyvňujúce duševné zdravie mladistvých odsúdených. In *Mládež a spoločnosť.* ISSN 1335-110, Bratislava, 2012. roč. 10, č. 4, 18-27 s.
4. HAVLÍK, R., KOŤA, J. 2002. *Sociologie výchovy a školy.* Praha: Portál, 2003. 175 s. ISBN 80-7178-635-7.
5. HOPF, A. 2001. *Sociální pedagogika pro učitele. Pomoc pro každý všední den ve škole.* Praha: Univerzita Karlova v Praze, Pedagogická fakulta, 2009. 181 s. ISBN 80-7290-053-6
6. KRAUS, B., POLÁČKOVÁ, V. 2001. *Člověk – prostředí – výchova: k otázkám sociální pedagogiky.* Brno: Paido. 2001. 199 s. ISBN 80-7315-004-2.
7. TURČEK, K. 2003. *Psychopatologické a sociálno-patologické prejavy detí a mládeže.* Bratislava. IRIS, 2008. 168 s. ISBN 80-88778-99-9.

Kontaktní údaje

PhDr. Marie Borová
Katolícka univerzita v Ružomberku
Pedagogická fakulta
Katedra sociálnej práce
Hrabovská cesta 1, 034 01 Ružomberok
Tel: 0911 421 689
email: mborova1@gmail.com

FILOSOFIE, POLITOLOGIE A DĚJINY

PHILOSOPHY, POLITICS AND HISTORY

NUMBER OF PAPERS: 18



KAŽDODENNÝ ŽIVOT NA PRVOM SLOVENSKOM GYMMNÁZIU ROKU 1865

EVERY DAY´S LIFE ON FIRST SLOVAK GYMNASIUM IN THE YEAR 1865

Ján Jakubej

Abstrakt

Príspevok poukazuje na fakt, že spomínaná inštitúcia pôsobila prakticky len vďaka milodarom dobrodincov. Tí však – až na nepatrné výnimky - nepochádzali z vyšších vrstiev. Takisto zaujímavým ostáva, že prispievali osobnosti, žijúce nielen na území dnešného Slovenska, ale aj za jeho hranicami (napríklad Aradáč, Pitvaroš či Sarvaš). Objavil som však aj nečakané ťažkosti (napríklad svojvoľné opustenie školy či neoznámenie o doručení výnosu zbierky.

Kľúčové slová: *Prvé slovenské gymnázium, zbierky, svedectvá o chudobe študentov*

Abstract

This article point to fact, that this institution enured in practice only thanks to benefications of benefactorts. Howewer, they don´t came from haves – except for exiguous exceptions. Is interesting, that persons, which contributed, lived not only on territory of contemporary Slovakia, but behind it´s borders, too (for example Aradáč, Pitvaroš or Sarvaš). But I discovered unespected problems – for example arbitrary vacation of school or misprision about delivery to earing of collection.

Key words*: the First Slovak gymnasium, collections, attestation about pauperism of students*

1. Úvod

V januári 1865 sa pomaly blížil k polovici tretí rok existencie gymnázia (1862 – 1874). Jeho činnosť sa začala sľubne: hneď na počiatku (v školskom roku 1862/1863) otvorili I. a II. triedu, richtár mesta, Juraj Kalina, sa spolu s prísažnými zaviazal ho podporovať a kladne sa k jeho vzniku postavili viacerí gemerskí duchovní – napríklad Daniel Gallay, pôsobiaci v Ratkovej či dekan škôl, Karol Bradovka. Podarilo sa osloviť taktiež mnohých dobrodincov, poskytujúcich finančné či materiálne dary. No na druhej strane objavujú sa už i temnejšie tóny: rybnický duchovný Štefan Homola sa ohradzuje voči správaniu sa patrónov gymnázia voči nemu, zbierka v Sielnici sa nevydarila kvôli suchote či mešťan Samuel Kusý sa neukázal ako vhodná osoba na vyberanie príspevkov pre spomínanú vzdelávaciu inštitúciu.

2. Každodenný život na gymnáziu

Podľa nedatovaného dokumentu (iba podľa zaradenia sa domnievam, že by možno mohol patriť k roku 1865), prispel zbor a mesto Aradáč na činnosť gymnázia "milodarom" v celkovej hodnote 14 zlatých.[1] Rybnický duchovný Štefan Homola oboznamuje (2.1.1865) gymnaziálny výbor, že miestny konvent odobril poskytnutie 16 zlatých na zakúpenie klavíra pre "múzický ústav," pretože by sa na ňom mohli prednostne vzdelávať študenti z Rybníka.

[1] *Správa o konaní zbierky v Aradáči*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok i jednotlivina bez signatúry. Prispeli: aradáčsky zbor 6 zlatých a 10 grajciarov, miestny duchovný, Leopold Abaffy, 5, obec 1, po 50 grajciarov zložili: notár A. Kovár, kurátor Juraj Burík a kostolník Martin Baglaš, 20 richtár Ján Olšust (?) a po 10 Juraj Čermák, kolár a Ján Zalát, "esküt" (= prísažný).

Odobril aj 40 grajciarov na korešpondenciu ohľadne vyhľadania vhodného nástroja. A ak by sa "učiteľské semenisko" presťahovalo z Nyiregyházy do Revúcej, poskytli by naň ďalších 100 zlatých.[2] Budikovanský kaplán Ján Valentínyi posiela (14.2.1865) gymnáziu 11 zlatých a 10 grajciarov, ktoré vyzbieral od troch zborov, v ktorých pôsobil.[3] V. Standhoffer vyrovnal (17.2.1865) svoju podlžnosť za Čítanku v sume 40 grajciarov, na Sokola poskytol 6 zlatých a gymnáziu "ako malý príspevok" 1. Ospravedlnil aj svoju neúčasť "na zábave 20. februára." Znovu sa tu však objavuje pálčivý problém: "Na to ráčte mi príležitostne poslať poistenie, aby sa mi tak nestalo, ako s mojim príspevkom na Vaše gymnázium za rok minulý, ešte v júni p. Šulekovi odoslaný, za ktorý som až v decembri od p. Štefančoka upovedomenie dostal. Ráčte ma aj o tom upovedomiť, či tie peniaze pán Šulek odovzdal, bo mi... s listom daného poistenia dosiaľ neodoslal."[4] Vavrišovský učiteľ, Ján Rodomil Klimo, zasiela (22.2.1865) 23 zlatých na základinu pre profesora a objasňuje, že ide o výnos z divadelného predstavenia, predstaveného v "hrádockom inštitúte." Prosí iba: "keď prijmete k rukám tu pripojené peniaze, by Ste ma oboznámili o ich skutočnom prijatí."[5] Superintendent Ľudovít Geduly[6] informuje gymnaziálny výbor (4.3.1865), že jednotlivé zbory zložili celkovo 92 zlatých a 68 grajciarov.[7] Karol Ruppeldt, učiteľ v Hodruši, sa rozhodol zorganizovať vlastnú zbierku, pretože sa mu javilo, že miestnemu duchovnému, Pavlovi Hečkovi, prispeli obyvatelia málo, celkovo iba 5 zlatými. Podľa tónu listu (písaného 30.3.1865) sa však ani on nestretol s vľúdnym prijatím, hoci presnú výšku vyzbieranej sumy neuvádza: "Klopal som tam i tam a otvorili - kde otvorili? - i dvere, i vrecko, či i srdce? to - krom toho prvého - neviem." Necháva pozdravovať Krmana, Ormisa i Schmidta, pričom "tomuto poslednému želám šťastné manželstvo, ráčte mu povedať, aby mi písal."[8] Štefan Čech posiela z Rimavskej Soboty príspevok zboru v Nižnom Skálniku v sume 30 zlatých. Viac nedokážu poskytnúť, "berúc do ohľadu jej chatrné dôchodky."[9] Michal Miloslav Hodža žiada (2.4.1865) o vysvetlenie situácie okolo študenta Ondreja Lenča. Jeho otec totiž nedávno osobne pricestoval do Revúcej a zložil 3 zlaté za knihy, 4 za vyučovanie a 5 za alumneum, no dozvedel sa teraz, že jeho potomok dlhuje ešte 8 zlatých a 82 grajciarov za knihy a 17 zlatých za alumneum. Pýta sa preto, či mu zvýšili poplatky a oboznamuje "drahého brata," že sa za Lenča

[2] *List rybnického duchovného Štefana Homolu, v ktorom odobruje zakúpenie klavíra*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 49/1864 - 1865.

[3] *List Jána Valentínyiho o vykonaní zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 28 (64/1865)..Matkocirkev v Hostišovciach poskytla 3 zlaté, dcérocirkev v Slizkom takisto 3 a dcérocirkev v Hostišovciach 5 zlatých a 10 grajciarov.

[4] *List V. Standhoffera, podľa ktorého vyrovnáva svoju podlžnosť*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 73/1865.

[5] *List o založení základiny na plat profesora vavrišovským učiteľom Jánom Klimom*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 66/1865.

[6] Podľa fragmentu správy o zbierke prispel v školskom roku 1863/1864 sumou rovných 90 zlatých.

[7] *Správa superintendenta Gedulyho o vykonaní zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 164 (69/1865). Nitriansky seniorát prispel 59 zlatými a 68 grajciarmi, Senica 21 zlatými a 80 grajciarmi, Brezová 8 zlatými a 62 grajciarmi, Sobotište 5 zlatými a osobitne vyčlenená slovenská cirkev v Modre 33 zlatými, "ostatok menšie cirkvi."

[8] *List hodrušského učiteľa Karola Ruppeldta o vykonaní zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 41/1865. Podľa priloženého lístočku sa jednalo o 4 zlaté a 40 grajciarov, zaujímavé však podľa môjho názoru ostáva, že z 11 prispievateľov sú 3 dámy: Anna Gajdošíková zložila 50 grajciarov, Eliška Schmidtová 30 a Rozalína Grőhnerová 15. Štatisticky vyhodnotené: hoci prispievateľky tvorili len 27, 27% - a to navyše často bez vlastného príjmu - celkového počtu dobrodincov, celkovo dokázali poskytnúť až 21,6% celkovej sumy. O dva roky skôr 4.7.1863, signatúra 88) sa síce "pánu Liptákovi" podarilo vyzbierať na činnosť gymnázia 34 zlatých, no iba preto, že "prišiel v dobrý čas, lebo práve sa držala u nás v Hodruši biskupská vizitácia." Už vtedy však dochádzalo k prenasledovaniu slovensky zmýšľajúcich evanjelických duchovných a ako pisateľ priznáva "toto prenasledovanie trafilo i mňa."

[9] *List Štefana Čecha o vykonaní zbierky v Nižnom Skálniku*, Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 80/1865.

prihováral, pretože takýto postup nevníma ako spravodlivý. Uzatvára podnetnou formuláciou: "Nech Ti je táto vec nie nemilá, ja viem, že je to pravdepodobne pre zväčšené náklady na piateho učbára a prajem z celej duše prospech nášmu slovenskému gymnáziu, ale práve preto myslím, že sa v tomto páde viac utratiť môže, ako získať, ak by ten pomer mal obstáť."[10] J. D. Makovický informuje (12.4.1865), že plánuje na Liptove vykonať zbierku na platy učbárov a že čoskoro by sa mala konať aj zbierka na gymnázium v Turčianskom Svätom Martine. Konštatuje: "Vláda totiž na toto gymnázium dá peniaze, no budovy nie, na budovy teda musíme sa skladať." Ondrej Uličný navyše poslal učbárovi Šmídovi "pred niekoľkými dňami" 13 zlatých, no nedozvedel sa, či mu ich doručili. A z Makovínyho listu cítim aj ľudský tón: "Z Jurka Augustíniho sa teším, že sa dobre učí a drží, Jurko Štepita mi ale svoju klasifikáciu tento rok neposlal."[11] Juraj Greguška posiela (11.5.1865) za knihy pre jeho syna rovnakého mena 3 zlaté, hoci mu ten údajne napísal, že potrebuje 5. Otcovi sa ale táto suma vidí privysoká a preto si vyžiadal radu od miestneho duchovného a ten mu povedal, že spomínané tri zlatky plne postačujú. Ak by ale skutočne diela stáli 5, sľúbil zvyšok zaplatiť, "keď prídem poňho."[12] Ján Bencúr[13] posiela (27.5.1865) z Dolného Kubína výnos zbierky v celkovej hodnote 64 zlatých 85 grajciarov - poskladali sa na ne: Miloslav Bencúr 15 zlatými, Judita Gregušová 4, Michal Halaša 8, Ondrej Halaša 11, Karol Haluška 5, Juraj Predzihránsky (?) 10, Trnkóci 8 a za knihy Miloslava Bencúra poslali ešte 3 zlaté a 85 grajciarov.[14] August Krčméry posiela (9.6.1865) v mene "zvolenských národovcov" na činnosť gymnázia 42 zlatých, vyzbieraných vďaka "čestným záväzkom," obsiahnutým v trinástich archách. Na šesť árch ešte čaká a sumu, ktorú daní páni hodlajú zložiť, nepozná, no "pevnú nádej mám, že prázdne neprídu." Úvodná formulácia tohto listu je podľa mojej mienky nádherná: "Pán niečo už požehnal, a čo požehnať ráčil, to s radosťou ponáhľam sa poslať Vám, drahí páni a bratia, aby sa potešili, zaplesali a Bohu vďaku vzdali za počiatok tento láskavých milodarov na naše prvé slovenské gymnázium..."[15] Ján Godra oznamuje (16.6.1865) z Horných Plachtiniec, že jemu "gymnázium viac na srdci leží, ako Matica." Verí, že rodičia pri nadchádzajúcich záverečných skúškach hojne prispejú na jeho chod a sám sa zaväzuje poslať čoskoro až 100 zlatých.[16] M. Ruman informuje z Levoče (1.7.1865) že Gustáva Kordoša[17] nezastihol v tomto

[10] *List Michala Miloslava Hodžu, v ktorom sa pýta na podlžnosti študenta Ondreja Lenča*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 72/1865.

[11] *List J. D. Makovického o plánovaných zbierkach*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 75/1865.

[12] *List Juraja Gregušku, s ktorým posiela peniažky za synove knihy*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 74/1865.

[13] Práve on ďakoval (26.2.1866, signatúra 112/1866) riaditeľovi gymnázia, že ho napriek svojej zaneprázdnenosti informoval o zdravotnom stave jeho syna, pretože tak, žiaľ, neurobil nik z "oravských šuhajcov."

[14] *List Jána Bencúra z Dolného Kubína, s ktorým posiela výnos zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 86.

[15] *List Štefana Krčméryho, s ktorým posiela výnos zvolenskej zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 81 (88/1865). Krčméry pomáhal zbierať príspevky na činnosť gymnázia i naďalej, no pobúrilo ho (28.8.1866, signatúra 4/1866 - 1867), že mu gymnaziálny výbor nedal vedieť o zaslaní príspevkov Ľubietovčanmi, zastúpenými Mikulášom Pepichom, ktorému v tejto veci zbytočne zaslal list. Roztrpčil ho aj fakt, že na neho akosi "pozabudli" a neposlali mu správu o činnosti školy. Napriek tomu víta otvorenie 7. triedy - a na druhej strane smúti nad skonom Karola Kuzmániho. Hoci zaslal solídnych 25 zlatých, ktoré zložili, výčitka sa nedá prehliadnuť: "Či Ste nie spokojní s mojim jednateľstvom? či ináč chápete zástoj jednateľstva, ako si ho ja predstavujem? Aby totiž o peňažných zásielkach v okolí svojom, tak i o samom gymnáziu a pokrokoch čím najúplnejšiu vedomosť mal. Ak som Vám nedostatočným, povedzte zrovna a poverte zástojom týmto, koho za súcejšieho a horlivejšieho uznávate, ja vďačne na Vašu žiadosť - tak, ako som vďačne podujal ho - i prinavrátim do rúk Vašich."

[16] *List Jána Godru z Horných Plachtiniec, v ktorom predpokladá, že čoskoro dokáže založiť základinu vo výške 100 zlatých*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 91/1865. Svoj sľub splnil už onedlho (4.7.1865, signatúra 97/1865) a žiadal, aby mu z tejto sumy, ktorú venoval na "základinu godrovskú," vyplácali každoročne 5% úrok. Sľúbil, že ročne dokáže prispieť sumou

meste, pretože šiel do Viedne zložiť peniažky, potrebné pre vykonanie záverečnej skúšky, nuž "len 8. júla v Liptove sa s mím zídem," vznikli mu však náklady. Navyše sa chystal na "druhú časť mojej misie" - 2. júla sa poberal do Šváboviec.[18] Ivan Branislav Zoch z Viedne ďakuje (20.7.1865) za ponuku učiť na revúckom gymnáziu "matematicko - fyzikálne vedy" a prijíma ju, hoci s obavami, či dokáže naplniť očakávania, do neho vkladané. Táto skromnosť mi imponuje o to viac, že pisateľ sám zhrnul, že študoval v Levoči, Šoprone i Tešíne a teraz dva roky pôsobí na viedenskej univerzite, pričom dostáva štipendium, ktoré "mi umožňuje i do šíreho sveta sa pozrieť."[19] Jozef Kvetoslav Holuby z Pešti ďakuje (2.8.1865) za ponuku "drahého priateľa" a prijíma miesto učiteľa na revúckom gymnáziu. Teší ho, že si na neho neznámy[20] spomenul, z textu vysvitá, že sa poznali zo štúdii v Prešporku, praje si len vedieť, či s takýmto krokom súhlasí A. H. Škultéty a či sú s ním aspoň oboznámení aj iní "národovci." V závere si praje vedieť, ako sa to má s výdavkami: "Ráčte mi ešte oznámiť, kedy by som sa k Vám dostaviť mal, či obdržím cestovného a ostatné výnimky bližšie udať."[21] Ján Kutlík, duchovný v Pitvaroši, zaslal (12.8.1865) 47 zlatých, z ktorých údajne 32 u neho zložil "suplikant" a 15 získal predajom obilia. Praje si, aby z tých 15 zlatých 10 priložili k základine, 4 venovali Matici a 1 vyplatili spomínanému suplikantovi. Príčinou biedneho stavu sa stala tri roky trvajúca neúroda a vysoká "árenda."[22] Ján Šimko z Turčianskeho Sv. Martina sa ospravedlňuje (14.8.1865) riaditeľovi školy, že zabudol u neho nechať peniaze na knihy, ktoré jeho syn[23] bude potrebovať na nasledujúci školský rok.[24]

---

tak 21 zlatých a môže zložiť aj niekoľko "kontraktov," ktoré by zatiaľ mal u seba uložené mladý Rafanides. Počítal s tým, že v prípade skonu - alebo ešte skôr - by všetky príjmy z týchto položiek pripadli gymnaziálnemu výboru. Našiel som aj starší list (z 21.9.1863, signatúra 23/1863), podľa ktorého zaslal gymnaziálnej knižnici niekoľko srbských a chorvátskych diel. Text, informujúci o matičnom posolstve, vyslanom k Františkovi Jozefovi I. a o tom, ako sa gróf Forgáč vyjadril, že mu slovenské záležitosti nie sú ľahostajné, je priam presiaknutý optimizmom.

[17] Práve jeho z rôznych príčin - ako mladého, šikovného, národne "prebudeného" i nemčinu ovládajúceho odporučil za profesora na revúckom gymnáziu Michal Hlaváč (10.5.1863. signatúra 70). V dokumente sa vyslovuje: "Žiak musí milovať svojho učiteľa a z tejto lásky hotový byť vykonať všetko, čo tento požaduje. Bázeň, zo studenej prísnosti učiteľovej vzniklá, má nútenosť, pri ktorej sa málo darí."

[18] *List M. Rumana ohľadne jeho ciest za podporovateľmi gymnázia*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 94/1865. Neskôr (7.11.1865, signatúra 62/1865) sa vyslovil "z R.," že premýšľal o Hutkovi, ktorý je z 5 zlatých dlžný ešte 2 a 40 grajciarov a nemá snahu sa ďalej vzdelávať, pritom dosiahol už 14. rok veku. Spomína takisto, že by bolo vhodné zmeniť rozvrh, pretože "7 hodina ranná sa celkom neprimeranou byť ukazuje."

[19] *List I. B. Zocha, ktorým prijíma miesto „učbára“ na gymnáziu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 98/1865.

[20] Z iného listu (z 15.8.1865, signatúra 108/1865) vyplýva. že šlo o Štefana Marka Daxnera. Holuby v ňom objasňuje (podľa mojej mienky Škultétymu), že on už 28. júla prijal ponúknuté miesto a podľa zápisnice zo zasadnutia, ktorú mu zaslali, ho gymnaziálny výbor 1. augusta prijal za "učbára prírodných vied," no doposiaľ - čiže do 13.8. - mu spomínaný Daxner nedal vedieť, kedy sa má dostaviť, či mu preplatia cestovné a ani, kde bude bývať. Predovšetkým tá posledná otázka ho obzvlášť súžila: "aby ste si nesťažovali pre mňa byt zo troch izieb pozostávajúci, kuchyne, špajzy a drevárne vyhľadať, lebo privediem so sebou dvoch šuhajcov, ktorí u mňa bývať budú!" Ďalší list poslal o asi tri týždne (7.9.1865, signatúra 107/1865) a vysvetlil, že tak musí urobiť, lebo pri podaní posledného chýbal na pošte dodací lístok a netuší teda, či ho doručili. Znova spomína dvoch mladíkov a dopĺňa, že študujú v "druhej triede latinskej," no vyjednáva s ich rodičmi, aby ich zapísali do Revúcej. Prízvukuje, že na podobné miesto sa tešil celé roky: "Ja som dodržal sľub, že ak prevezmem učbárstvo vied, v ktorých sa od útlej mladosti s obľubou vzdelávam, to bude len na slovenských školách. Preto som už dve miesta mi ponúkané, jedno v Srbsku, neskôr druhé v Novom Sade, neprijal."

[21] *List Jozefa Kvetoslava Holubyho, ktorým prijíma miesto „učbára“ na gymnáziu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 106/1865.

[22] *List pitvarošského duchovného Jána Kutlíka, s ktorým posiela svoj a suplikantov príspevok*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 21/1865.

[23] Pravdepodobne ide o Janka Šimka, za ktorého sa zaručil (v liste z 29.9.1865, signatúra 18/1865) aj istý Jozef Horvát.

Kurátor zboru v Dobrom Potoku, Ján Antalec a richtár obce, Ján Molnár s dvomi prísažnými - Ondrejom Halásom a Jánom Polomským - prosia o pôžičku vo výške 200 zlatých z gymnaziálnej pokladnice, pretože "cirkvi naše ohňom navštívené súc, kde medzi inými budovami, i škola popolom ľahla. Pretože ale školu aj budovy školské postaviť chceme, postaviť musíme, ale na to potrebné peniaze nám chýbajú..."[25] Richtár, jeden prísažný i notár obce Krajná potvrdili (23.8.1865), že 16 - ročný mladík Pavol Králik síce nevlastní žiaden majetok, ale "v štúdiách svojich v Revúcej pokračovať mieni."[26] Richtár Ján Jonáš a Ján Greguš z Liptovského Jána dosvedčili (24.8.1865), že Michal Oravec má veľmi šikovného 12 - ročného syna rovnakého mena, ktorého nemôže pre chudobu dať na štúdiá.[27] Profesor František Mráz zaslal (26.8.1865) "na ukážku´" jeden výtlačok cvičebnice maďarčiny s tým, že do 10. septembra poskytne ešte 2 hárky s úlohami č. 25 - 55 a dovtedy sa majú tiež učbári vysloviť, či sa im dielo pozdáva, alebo nie. Ak by sa rozhodli odoberať ho priamo od neho, poskytne im zľavu 12%. O spise podrobne konštatuje: „úlohy ku paragrafom[28] zriadené sú ku prekladaniu z maďarčiny do slovenčiny a zo slovenčiny do maďarčiny, každý odsek obsahuje 20 - 40, aj 50 viet, ale len na to, o čom sa žiak učil, nič na viac. Celá cvičebnica bude obsahovať 5 hárkov, ku nej slovník slovensko - maďarský a maďarsko - slovenský asi 3 hárky a tak celé dielo asi 24 hárkov. Cena bude 1f. a 60gr. Myslím, že to nebude mnoho, primerane veľkosti, úplnosti a nákladom."[29] Duchovný z Ľubietovej, G. Pepich, sa odtiaľ prihovoril (27.8.1865) za A. Kutného, pochádzajúceho z chudobných pomerov.[30] Žiada preto "by mu patričnosť na alumneum ak nie celkom odpustená, aspoň značne uľavená bola."[31] M. Kramár z Turčianskeho Sv. Martina vypravil (29.8.1865) do školy svojho syna s tým, že mu na školné dal 5 zlatých a na alumneum 15. Šlo každopádne o vzdelanú rodinu: "Ostatné na knižky - ale aké potrebovať bude, z domu všetky latinské, nemecké, grécke a maďarské pozbieral, ak ich upotrebiť môže, dobre - ak nie, teda za dané mu knihy na budúci mesiac Vám odošlem."[32] Ondrej Bodický, duchovný v Senom,[33] zaslal (30.8.1865) gymnáziu podporu v celkovej výške 37 zlatých. Prispeli na ňu: Daniel Maróthy 18 zlatými (zložil naraz sľúbené tri ročné

---

[24] *List Jána Šimka z Martina, v ktorom sa ospravedlňuje, že zabudol poskytnúť peniaze na synove knihy*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 29/1865.

[25] *List kurátora zboru v Blatnom Potoku, Jána Antalca, v ktorom prosí o pôžičku 200 zlatých z gymnaziálneho fondu.* Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 109/1865.

[26] *Potvrdenie richtára obce Krajná o ochote chudobného Pavla Králika ďalej študovať na gymnáziu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 69/1865.

[27] *Svedectvo richtára Liptovského Jána, Jána Jonáša, o túžbe chudobného Michala Oravca študovať na revúckom gymnáziu.* Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 4/1865.

[28] v origináli "ku §§ - om."

[29] *List profesora Mráza, s ktorým posiela „na ukážku“ časť svojej pripravovanej učebnice maďarčiny*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 8/1865.

[30] Ešte skôr (1.9.1864. signatúra 12/1864) sa prihovoril za svojho syna Gustáva Adolfa Pepicha, ktorého posielal do I. triedy gymnaziálnej. Problém tkvel predovšetkým v tom, že šlo už o tretieho syna, ktorého posielal na štúdiá a okrem nich vychovával aj nespresnený počet dcér. Spolu s ním cestoval do IV. triedy Adam Čáni.

[31] *List ľubietovského duchovného, G. Pepicha, v ktorom sa prihovára za chudobného študenta A. Kutného*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 2/1865. Podobnú prosbu adresoval aj Ján ... Kováč z Nemeckej Ľupče (14.9.1865, 14/1865) v mene svojho syna rovnakého mena.

[32] *List M. Kramára z Martina, ktorým oznamuje, že posiela nielen syna, ale i knihy, ktoré považuje za užitočné*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 5/1865.

[33] Zaručil sa aj za Janka Fábryho zo Suchého Brezova, ktorého otec - mlynár - pred tromi rokmi vyhorel. Svedčí o tom list z 8.9.1865 (signatúra 19/1865). Pokúsil sa tiež usporiadať zbierku, ale nepodarilo sa mu vyzbierať toľko, koľko pôvodne predpokladal (dosvedčuje to dokument číslo 75 z 26.5.1863).

príspevky po 6), samotný zbor a jeho duchovný po 5, Ján Molitoris[34] a Michal Algoren (?) po 3 (činilo to polovicu a tretinu ich záväzku), Pavol Berthaus 2 a Michal Beer 1.[35] Richtár Nemeckej Ľupče sa zaručil (31.8.1865) za Adama Scholza, syna mešťana rovnakého mena, ktorý ešte roku 1856 vyhorel, "z ktorého nešťastia až dosiaľ nezotavil sa," no napriek tomu sa pokúšal sám učiť Adama literatúre, postupne ho však opúšťali sily.[36] Toho istého dňa odporučil pravdepodobne mošovský učiteľ Ján Čajka za študenta svojho syna Juraja.[37] Pezinský duchovný Ján Mockovčák sa zaručil (7.9.1865) za Pavla Mudrocha a prosil, aby sa smel na gymnáziu stravovať zadarmo, pretože "jeho matka je viac rokov vdova, ktorá žiadneho iného majetku nemá, ako jednu polovicu domu, ktorú sama obýva."[38] Pravdepodobne tisovecký učiteľ (meno som nedokázal prečítať) prosil "drahého priateľa" o vydanie svedectva, preto mu posiela 1 zlatý a "15 - dňovú zmenku."[39] Ján Weisssenbacher z Brezna opakovane prosí (8.9.1865) o "testimonium"[40] pre svojho syna Jána, pretože "už je najvyšší čas, aby som s ním preč odišiel."[41] Ľudovít Turzo píše z Banskej Bystrice (15.9.1865), že posiela 60 kusov "protisekáčovských osvedčení," ktoré sa u nich predávajú po 60 grajciarov, no učbári by ich mali predávať po 23, pričom 3 grajciarmi sa zohľadňovali výdavky na poštovné. Nabádal vyučujúcich, aby sa o svojej činnosti zmieňovali v Pešťbudínskych vedomostiach a dokonca i za hranicami Uhorska: "V čas príhodný by neškodilo aj do českých, obzvlášť moravských novín písať o gymnáziu tom, to by dopomohlo k tomu, že aj odtiaľ by dochádzali žiaci."[42] Zuzana Zettiová z Hnúšte poskytla svojmu synovi Jánovi 3 zlaté a 50 grajciarov zo svojho biedneho príjmu a prosila "pánov profesorov," aby dohliadli na to, ako s nimi naloží.[43] Ján Kollár, duchovný v Hrušove, oboznámil "drahocteného pána brata," že Ján Kalanda, syn učiteľa v Lipovci, Samuela Kalandu, odišiel

---

[34] Pravdepodobne jeho príbuzný, duchovný na Turom Poli, Ján Anton Molitoris, zaslal (3.7.1863, bez signatúry) gymnáziu "26 zlatých v bankovkách, 1 dvadsiatnik, ako tiež 3 šestáky strieborné in natura." Ospravedlňuje svoje meškanie "vzdialenosťou z domu" a "nedostatkom spoľahlivej príležitosti."

[35] *List Ondreja Bodického zo Seného, s ktorým posiela aj výnos zo zbierky*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 68/1865 (10/1865). Ondrej viedol zbierku už v predošlom roku (svedčí o nej dokument 2.6.1864, signatúra 69/1864), ktorá vyniesla 11 zlatých - on sám poslal 5, zbor v Sennom a ... poskytol po 2, zbor v Brusníku 1 zlatý a 10 grajciarov, zbor v Brezove 52 grajciarov a zbor v Príboji 38 grajciarov.

[36] *Svedectvo richtára Nemeckej Ľupče o ochote Adama Scholza študovať na gymnáziu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 409 (6/1865). Rovnako kvôli požiaru z roku 1856 sa do značných ťažkostí dostala aj vdova Zuzana Čániová, rodená Rusiová "so svojimi štyrmi sirotami" (svedectvo z 9.9.1865, signatúra 415 (16 /1865)). Ten istý požiar a "iné nehody na majetku" priviedli do biedy aj Alexandra Šlachtu, ktorý nemal peniaze na štúdium pre svojho syna Jána (svedectvo zo 7.9.1866, signatúra 128/1866 (25/1866)).

[37] *Svedectvo mošovského učiteľa Jána Čajku o ochote jeho syna Juraja študovať na gymnáziu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 17/1865.

[38] *Svedectvo pezinského duchovného Jána Mockovčáka pre študenta Pavla Mudrocha*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 20/1865.

[39] *Prosba tisovského učiteľa o svedectvo*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 15/1865.

[40] = podporu.

[41] *List breznianskeho mešťana Jána Weissenbachera s prosbou o podporu pre jeho syna rovnakého mena*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 24/1865. Našiel som i predošlý list (z 3.9.1865, signatúra 11/1865) podľa ktorého mal spomínaný pán značné vedomosti - vedel, že Štefan Marko Daxner musí odísť z postu podžupana Gemerskej župy, tvrdí preto, že by ho dokázal nahradiť iba "Malatinský z Brezova." Vyrovnáva svoju podlžnosť a objasňuje, že plánuje chlapca poslať radšej do Levoče, nech sa jeden rok učí nemčinu a jeden rok "uhorskú reč" (= maďarčinu), aby sa "cez svet prebiť vedel." Práve preto potreboval svedectvo o jeho štúdiu v I. triede revúckeho gymnázia.

[42] *List Ľudovíta Thurza z Banskej Bystrice, v ktorom radí, ako gymnázium viac spropagovať u verejnosti*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 23/1865. Hovorí aj o istom Ruttkayovi, ktorý je "teraz v zlom položení."

[43] *List Zuzany Zettiovej z Hnúšte, s ktorým posiela peniažky pre svojho syna Jána*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 32/1865.

študovať do Gemera bez toho, aby si vyžiadal svedectvo o vzdelávaní sa na revúckom gymnáziu a aby uhradil svoju podlžnosť vo výške 10 zlatých. Uisťuje ho, že o tomto kroku takisto netušil a spomínanú sumu vyzdvihne zo zosýpky jeho otca a pošle mu ich. Zaujímavo vyznieva aj doplňujúca poznámka: "I Jozef brat, ako počujem, do Rožňavy odišiel, čo ma veľmi mrzí - oplan, keby sa bol aspoň tu ohlásil."[44] Richtár Brezovej, Ján Zánik, prísažní Pavel Bielik, Matej Fajnor, Tomáš Hruška a Anton Michelek i evanjelický duchovný Tomáš Hroš... dosvedčili (18.10.1865), že ich spoluobčan Ján Bzdúch s manželkou a ôsmimi deťmi trú takú biedu, že svojmu synovi Tomášovi na gymnaziálne štúdiá "ani to najmenšie vynaložiť v stave nenie."[45] Andrej Teleky, duchovný v Švábovciach, prosí "direktoriát" gymnázia (16.10.1865), aby oznámilo Pepichovi "ak je to ľubietovského farára syn a pomocník v Revúcej, že sa v Hranovnici uvoľnilo miesto učiteľa a "on by sa hodil do tej cirkvičky."[46] Samuel Martini, duchovný v Háji, sa roztrpčuje (20.11.1865), že študenta Tomáša Kučeru vylúčili z alumnea (11.11.1865) a tri dni ostal o hlade, čo pisateľ vnímal ako nekresťanské. Chlapec vraj listom oboznamoval otca, ale list sa stratil na pošte. Len čo sa dozvedel o jeho rozpoložení, posiela mu od rodiča 16 zlatých, ktoré si musel požičať. Odvoláva sa na reč, ktorú A. H. Škultéty predniesol pri otvorení školy. Až v závere kladie farár najdôležitejšie otázky: "akú určenú taxu má on na alumneum platiť? Koľko naň vyplatil? Koľko dlhuje?"[47] Ľudovít Vansa poskytol (17.11.1865) z Prahy niekoľko knižočiek a 15 zlatých zo zbierky. Ospravedlnil sa i pochválil: "Už pred rokom som mal vôľu zbierku kníh v Prahe pre Vaše gymnázium zaviesť, ale keď sa k tomu chystám, a to síce v septembri, keď najviac času mám, vždy ma nejaká nehoda zastihne. Ruppeldt a Tomášik by to tiež mohli urobiť, lež výdatnejšieho výsledku nádejám sa, keď to sám hlavne vykonám, majúc tu medzi Čechmi dosť veľké známosti."[48] Samuel Godra si z Horných Plachtiniec overuje (29.11.1865), či "pán profesor" kedysi pracoval na klopačke v Banskej Štiavnici a prízvukuje, že všetko, čo kedy výboru sľúbil, hodlá naplniť, iba ho práve postretli nepriaznivé okolnosti: "Čas ale určiť nemôžem, na jar budem domček stavať a teraz je tak málo peňazí, že človek od dlžníkov nič nedostane, ak ich len nechce dať exekvovať, čo s mojimi cirkevníkmi na tento čas nechcel by urobiť."[49] Dr. Jonáš Bohúni sa rozhodol (4.12.1865) prispieť Samuelovi Ormisovi sumou 5 zlatých a svojmu synovi Emilovi 3. Chváli predstavenstvo školy, že o

[44] *List hrušovského duchovného Jána Kollára, v ktorom oznamuje, že Ján Kalanda z Lipovca odišiel študovať do Gemera, hoci to neoznámil gymnaziálnemu výboru, ani jemu*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 27/1865.

[45] *Svedectvo brezovského richtára Jána Zánika a prísažných o obzvláštnej chudobe rodičov študenta Tomáša Bzdúcha.* Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 66/1865. Brezovská cirkev takisto dosvedčila (24.8.1865, signatúra 136 (22/1865), že sa otec síce snaží, venuje sa remeslu i podnikaniu a vlastní domček i s pozemkom, ale osem potomkov, žiaľ, uživiť nedokáže.

[46] *List švábovského duchovného Andreja Telekyho, ktorým ponúka študentovi Pepichovi miesto kaplána v Hranovnici*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 44/1865.

[47] *List duchovného v Háji, Samuela Martiniho, v ktorom sa ohradzuje proti konaniu činovníkov gymnázia, ktorí pre podlžnosť na alumneum údajne nechali študenta Tomáša Kučeru tri dni o hlade*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 50/1865. A to najhoršie malo ešte len prísť - Martini píše (17.5.1865, signatúra 81/1865), že odteraz už Kučerovi rodičia nemôžu poskytnúť vôbec nič. Tón ale zmiernil, nazýva adresáta svojich riadkov (zrejme Škultétyho) "bratom" a vyslovuje sa o jeho "drahocennom priateľstve." Navrhuje aj riešenie nepriaznivej situácie študentovej: nech mu vyučujúci dovolia urobiť suplikáciu (= zbierku) pre potreby školy, čím by si ho nielen zaviazali vďačnosťou, ale umožnili by mu tiež získať nejaké peniažky.

[48] *List Ľudovíta Vansu z Prahy, s ktorým posiela výnos zo zbierky i niekoľko kníh*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 71/1866 (!).

[49] *List Samuela Godru z Horných Plachtiniec, v ktorom uisťuje, že sľúbený príspevok pošle, len čo sa mu vráti aspoň časť požičaných peniažkov*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 53/1865.

svojej činnosti informuje vo "Vedomostiach" a tvrdí, že aj on sám sa o nej pred inými rodičmi vyjadruje pozitívne. Emilovi plánuje po Novom roku kúpiť korčule a zaujíma sa o ich cenu. Takisto - ak by sa naskytla možnosť - rád by zapísal syna na kurz tanca. Zaujímavé však predovšetkým ostáva, že si nepraje synovu prítomnosť na Vianoce doma, bojí sa totiž o jeho bezpečnosť, ako dôvodí "aby ho krútňava na ceste nezastihla."[50] Rovnakého dna žiadal - na základe novo prijatého župného nariadenia č. 1527 - richtár mesta, Ondrej Viest, aby gymnaziálna správa vrátila mestu všetky peniaze, ktoré ono vynaložilo na chod školy.[51] Učiteľ Karol Riezner zo Zemianskeho Podhradia posiela (6.12.1865) 16 zlatých, aby sa 8 použilo na knihy, 4 a 40 grajciarov na ubytovanie na 4 mesiace a ostatok mal pripadnúť mladému mužovi. Prosí zároveň riaditeľa, aby ho oboznámil, koľko ešte Ľudovít dlhuje na školnom, nech smie danú sumu čím skôr vysporiadať.[52] Vyslanec "okresu dolnokysuckého" mal podľa zachovaných "žiadostí voličov" na zasadnutí snemu (10.12.1865) okrem iných politických a hospodárskych požiadaviek tlmočiť aj tú, že Slováci si prajú prevziať do svojich rúk všetky "nižšie i vyššie školy" a zriadiť "právnickú akadémiu a hospodársku školu."[53] Ondrej Gőmőry, učiteľ v Polome, prosí (12.12.1865), či by "učbári" mohli pustiť jeho syna domov už 15. decembra, pretože sa mu naskytla príležitosť cestovať bezpečne "s našimi mlynármi."[54] Ján Kvačala, "náš verný národovec a všeobecne vážený mešťan," poslal (25.12.1865) po Štefanovi Koreňovi zo Sarvaša príspevok na činnosť gymnázia vo výške 5 zlatých. Prial si, aby jeho meno figurovalo v správe na budúci rok "ak vydaná bude." Aj sám Koreň plánoval poslať 5, tak, ako minulý rok, "mne to ale na tento čas nemožno, na tom budem, aby som zameškané na rok vynahradiť mohol."[55]

---

[50] *Pochvalný list dr. Jonáša Bohúniho, v ktorom sa okrem iného zmieňuje, že by svojho syna Emila rád zapísal na kurz tanca a kúpil mu korčule*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 57/1865.

[51] *Žiadosť revúckeho richtára Ondreja Viesta, aby gymnázium vrátilo všetky prostriedky, ktoré mesto vynaložilo na jeho fungovanie*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 188/1865 (51/1865).

[52] *List učiteľa zo Zemianskeho Podhradia, Karola Rieznera, s ktorým posiela peniažky na vyrovnanie podlžností jeho syna*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 56/1865. Podobná situácia sa opakovala aj nasledujúceho roku: Karol (v liste z 12.8.1866, signatúra 161/1866) prosí o zhovievavosť a posiela 20 zlatých, ktoré jeho syn dlhuje na školnom s tým, že zvyšok "s príchodom môjho syna do Revúcej odošlem." Už o mesiac skôr (dokument z 15.7.1866, signatúra 152/1866) zaslal 20 zlatých a objasňoval, že príčinou finančných ťažkostí je jeho choroba, spojená s kašľom, takže "dosť som ako na lekárov dal, tak na lieky utratil a doposiaľ málo lepšie sa cítim." Netuší preto, či dokáže vypraviť syna do Revúcej aj nasledujúci rok, obzvlášť po nedávnej pohrome: "na našich stranách, ako aj u nás mráz d. 23. a 24. mája narobil veľa škody, lebo ovocie, ktoré sa na stromoch preukazovalo, všetko odobral, a to je u nás druhá žatva." Iný dokument (nedatovaný a bez signatúry) vrhá na Karolovo otáľanie s platbami jasnejšie svetlo: svojmu synovi plne nedôveroval, preto mal riaditeľ zvážiť, či mu odovzdá časť z 20 zlatých, ktoré mu posiela, alebo mu radšej dané diela nakúpi sám. Navyše ako duchovný dostával len "21 zl. r. č. a 30. meríc prešporských raže."

[53] *Žiadosť vyslanca „dolnokysuckého okresu," aby Slováci prevzali pod svoju správu všetky vyššie i nižšie školy a založili si aj hospodársku a právnickú.* Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 64/1865. O gymnáziu revúckom sa dokument - ak som dobre videl - nezmieňuje, čo si vysvetľujem spokojnosťou pisateľov z jeho fungovaním. Dokument ale nie je podpísaný, nuž netuším, kto stál za jeho zrodom...

[54] *List polomského učiteľa Ondreja Gőmőryho, v ktorom prosí, aby jeho synovi dovolili odísť skôr, nech sa bezpečne dostane domov*. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 67/1865. Zjavne rodina na tom nestála finančne najlepšie: mladý muž nenastúpil včas do školy už v predošlom polroku (dosvedčuje to list jeho otca z 21.4.1865, signatúra 76/1865). Termín učbári stanovili na 20. apríla, no spomínaný pán argumentuje: "to nedostatok robí - ako sami ráčite vedieť, furmana najať, to je pre mňa veľká trova a som len sám z tejto našej doliny, tak musím vždy hľadieť, aby i vlk sýty, i baran celý bol, medzitým sa omeškal, nech to hľadí dobehnúť, ako aj myslím, že on to i urobí a od pokuty merkovaný (= ochránený) bude."

[55] List Štefana Koreňa zo Sarvaša, s ktorým posiela príspevok svojho krajana Jána Kvačalu. Archív ECAV v Revúcej, fascikel Gymnázium 1863 - 1867, celok bez signatúry, signatúra jednotliviny 69/1865. Ako vyplýva z o

3. Záver

V nasledujúcom roku (1866) sa činnosť gymnázia ďalej rozvíja, čo napriek torzovitosti dokumentov možno dosvedčiť napríklad zmienkou o spolupráci s Maticou českou, vyjadrením o organizovaní gymnaziálnej zábavy, alebo snahou o zakúpenie klavíra. Ani ťažkostí však výrazne neubudlo, hoci zachované pramene ukazujú, že sa zmenil ich charakter: študent Ján Lacko údajne prepadol alkoholu a kartárskej vášni, jeho „kolega" Juraj Šoltýs zasa svojvoľne zanechal štúdium a istý Ružiak sa ponosuje, že jeho syn na revúckom gymnáziu zabudol viacero rečí, ktoré ovládal. A tak okamih, ktorým činnosť gymnázia dosiahla zenit – prvé maturity v slovenskom jazyku (1868) – konali sa už v preň vrcholne politicky i spoločensky nepriaznivej atmosfére, vyhrocujúcej sa predovšetkým od rakúsko – uhorského vyrovnania, uskutočneného v predošlom roku (1867).

Zoznam použitých prameňov

Archív Gemerského seniorátu evanjelickej cirkvi augsburského vyznania v Revúcej, fond Gymnázium 1863 – 1867, bez signatúry (výber):

1. *Druhý list Jozefa Kvetoslava Holubyho, v ktorom žiada o spresnenie podmienok ubytovania v Revúcej*, signatúra 107/1865.
2. *List brezneanskeho mešťana Jána Weissenbachera s prosbou o podporu pre jeho syna rovnakého mena*, signatúra 24/1865.
3. *List duchovného v Háji, Samuela Martiniho, v ktorom sa ohradzuje proti konaniu činovníkov gymnázia, ktorí pre podlžnosť na alumneum údajne nechali študenta Tomáša Kučeru tri dni o hlade*, signatúra 50/1865.
4. *List hodrušského učiteľa Karola Ruppeldta o vykonaní zbierky*, signatúra 41/1865.
5. *List I. B. Zocha, ktorým prijíma miesto „učbára" na gymnáziu*, signatúra 98/1865.
6. *List J. D. Makovického o plánovaných zbierkach*, signatúra 75/1865.
7. *List Jána Bencúra z Dolného Kubína, s ktorým posiela výnos zbierky*, signatúra 86.
8. *List Jána Godru, v ktorom oznamuje založenie „godrovskej základiny v hodnote sľúbených 100 zlatých*, signatúra 97/1865.
9. *List Jána Šimka st. z Martina, v ktorom sa ospravedlňuje, že zabudol poskytnúť peniaze na synove knihy*, signatúra 29/1865.
10. *List Jána Valentínyiho o vykonaní zbierky*, signatúra 28 (64)/1865.
11. *List Juraja Gregušku, s ktorým posiela peniažky za synove knihy*, signatúra 74/1865.
12. *List Karola Rieznera, v ktorom ozrejmuje, že svojmu synovi plne nedôveruje*, bez signatúry.
13. *List kurátora zboru v Blatnom Potoku, Jána Antalca, v ktorom prosí o pôžičku 200 zlatých z gymnaziálneho fondu*, signatúra 109/1865.
14. *List ľubietovského duchovného, G. Pepicha, v ktorom sa prihovára za chudobného študenta A. Kutného*, signatúra 2/1865.
15. *List Ľudovíta Thurza z Banskej Bystrice, v ktorom radí, ako gymnázium viac spropagovať u verejnosti*, signatúra 23/1865.

---

rok mladšieho listu (29.8.1866, signatúra 12/1866), Koreň svoj sľub nesplnil - gymnáziu vtedy poslal namiesto spomínaných 10 (5 za rok 1865 a 5 za rok 1866) iba 2 zlaté, pretože svojho syna poslal študovať "do Nemecka." Zato Kvačala svoj príspevok zvýšil z 5 na 10 zlatých. Zaujímavo vyznieva aj najstarší mnou nájdený list Koreňa správcovi (10.8.1864, signatúra 86/1864) v ktorom spolu s Kvačalom posielajú spolu 10 zlatých a spomínaný pán sa ponosuje: "V slovenčine sme pre nedostatok mluvnice a čítanky najviac Nový zákon ako učebnú knihu potrebovali, lebo len biblickú reč učiť máme..." A ďalej uisťuje: "Keby ale už raz len vyšla dobrá čítanka pre gymnáziá, predsa len ju zavedieme, lebo bez čítanky a časopisov pri toľkej maďarčine nemožno nám značnejších *List Jána Godru, v ktorom oznamuje založenie „godrovskej základiny v hodnote sľúbených 100 zlatých* pokrokov docieliť."

16. *List Ľudovíta Vansu z Prahy, s ktorým posiela výnos zo zbierky i niekoľko kníh*, signatúra 71/1865.
17. *List M. Kramára z Martina, ktorým oznamuje, že posiela nielen syna, ale i knihy, ktoré považuje za užitočné*, signatúra 5/1865.
18. *List M. Rumana ohľadne jeho ciest za podporovateľmi gymnázia,* signatúra 94/1865.
19. *List o založení základiny na plat profesora vavrišovským učiteľom Jánom Klimom*, signatúra 66/1865.
20. *List Ondreja Bodického o neúspešnom pokuse zorganizovať zbierku*, signatúra 75.
21. *List pitvarošského duchovného Jána Kutlíka, s ktorým posiela svoj a suplikantov príspevok*, signatúra 21/1865.
22. *List polomského učiteľa Ondreja Gőműryho, v ktorom prosí, aby jeho synovi dovolili odísť skôr, nech sa bezpečne dostane domov*, signatúra 67/1865.
23. *List profesora Mráza, s ktorým posiela „na ukážku" časť svojej pripravovanej učebnice maďarčiny*, signatúra 8/1865.
24. *List rybnického duchovného Štefana Homolu, v ktorom odobruje zakúpenie klavíra*, signatúra 49/1864 – 1865.
25. *List Samuela Godru z Horných Plachtiniec, v ktorom uisťuje, že sľúbený príspevok pošle, len čo sa mu vráti aspoň časť požičaných peniažkov*, signatúra 53/1865.
26. *List Štefana Čecha o vykonaní zbierky v Nižnom Skálniku*, signatúra 80/1865.
27. *List Štefana Koreňa zo Sarvaša, s ktorým posiela príspevok svojho krajana Jána Kvačalu*, signatúra 69/1865 (opakovane).
28. *List Štefana Krčméryho, s ktorým posiela výnos zvolenskej zbierky*, signatúra 81 (88)/1865.
29. *List švábovského duchovného Andreja Telekyho, ktorým ponúka študentovi Pepichovi miesto kaplána v Hranovnici*, signatúra 44/1865.
30. *List tisoveckého učiteľa, ktorý sa rozhodol poslať syna radšej na štúdium do Levoče*, signatúra 11/1865.
31. *List V. Standhoffera, podľa ktorého vyrovnáva svoju podlžnosť*, signatúra 73/1865.
32. *List Zuzany Zettiovej z Hnúšte, s ktorým posiela peniažky pre svojho syna Jána*, signatúra 32/1865.
33. *Pochvalný list dr. Jonáša Bohúniho, v ktorom sa okrem iného zmieňuje, že by svojho syna Emila rád zapísal na kurz tanca a kúpil mu korčule*, signatúra 57/1865.
34. *Potvrdenie richtára obce Krajná o ochote chudobného Pavla Králika ďalej študovať na gymnáziu*, signatúra 69/1865.
35. *Prvý list Jozefa Kvetoslava Holubyho, v ktorom žiada o spresnenie podmienok ubytovania v Revúcej*, signatúra 108/1865.
36. *Správa o konaní zbierky v Aradáči*, bez signatúry.
37. *Správa superintendenta Gedulyho o vykonaní zbierky*, signatúra 164 (69)/1865.
38. *Svedectvo brezovského richtára Jána Zánika a prísažných o obzvláštnej chudobe rodičov študenta Tomáša Bzdúcha*, signatúra 66/1865 (opakovane).
39. *Svedectvo Jozefa Horváta v prospech Jána Šimka*, signatúra 18/1865.
40. *Svedectvo mošovského učiteľa Jána Čajku o ochote jeho syna Juraja študovať na gymnáziu*, signatúra 17/1865.
41. *Svedectvo o biede vdovy Zuzany Čániovej a jej rodiny po požiari*, signatúra 415 (16/1865).
42. *Svedectvo o nesmiernej biede rodiny Jána Bzdúcha*, signatúra 136 (22/1865).
43. *Svedectvo pezinského duchovného Jána Mockovčáka pre študenta Pavla Mudrocha*, signatúra 20/1865.
44. *Svedectvo richtára Liptovského Jána, Jána Jonáša, o túžbe chudobného Michala Oravca študovať na revúckom gymnáziu*, signatúra 4/1865.

45. *Svedectvo richtára Nemeckej Ľupče o ochote Adama Scholza študovať na gymnáziu*, signatúra 409 (6/1865).
46. *Žiadosť revúckeho richtára Ondreja Viesta, aby gymnázium vrátilo všetky prostriedky, ktoré mesto vynaložilo na jeho fungovanie*, signatúra 51/1865.
47. *Žiadosť vyslanca „dolnokysuckého okresu," aby Slováci prevzali pod svoju správu všetky vyššie i nižšie školy a založili si aj hospodársku a právnickú*, signatúra 64/1865.

Kontakt
Mgr. Ján Jakubej, PhD.
Univerzita Konštantína Filozofa v Nitre, Filozofická fakulta, Katedra histórie
Hodžova 1, 949 74 Nitra
jakubej.jan@gmail.com

EKONOMICKÁ KONCEPCIA - NEMECKO V OBDOBÍ DRUHEJ SVETOVEJ VOJNY

ECONOMIC CONCEPT - GERMANY IN THE SECOND WORLD WAR

Rastislav Pirkovský

Abstrakt

Ekonomický princíp národného socializmu je najviac podobný Keynesovej teórii, ktorá odôvodňuje potrebu štátnych intervencií v trhovej ekonomike. Nacisti boli presvedčený, že lepšou organizáciou hospodárskeho systému je možné dosiahnuť výrazne vyššie bohatstvo. Nacizmus je program permanentnej celkovej mobilizácie, ktorej cieľom nie je peňažný zisk alebo iný ekonomický záujem. Pri riadení hospodárstva štátu a plnej zamestnanosti sa podnikateľ oslobodil od hospodárskej krízy. Zároveň dostal slobodu. Pre Hitlera nebolo mysliteľné, aby sa Nemecko zadlžovalo u medzinárodných finančníkov (tých považovali všetkých za Židov). Nie je možné zostať navždy na rovnakom štupni vývoja. Technologický pokrok je neobmedzený a „nová civilizácia" vždy spôsobuje vyhynutie tej starej.

Kľúčové slová: *Keynes, národný socializmus, ekonomický zázrak*

Abstract

The economic principle of national socialism is most akin to Keynes' theory, justifying the necessity of state interventions in the market economy. Nazis are convinced that by better organization of the economic system, it is possible to achieve significantly higher wealth. Nazism is a program of permanent total mobilization, the goal of which is not monetary gain or other economic interest. With state economic governance and full employment, the entrepreneur was relieved of the economic crisis. At the same time, he was given the liberty of peace in the throne. For Hitler, it was not conceivable that Germany owed to bankers of international financial circles (those considered by all Jews) for the development of the economy. It is not possible to stay forever at the same stage of development. Technological development is unlimited and the new civilization always causes the extinction of the old one.

Keywords: *Keynes, national socialism, economic miracle*

1 ÚVOD

Po vypuknutí veľkej hospodárskej krízy v rokoch 1929 až 1933 sa s konečnou platnosťou rozplynuli ilúzie o ekonomickom liberalizme 19. storočia. Takmer vo všetkých kapitalistických ekonomikách dochádzalo čoraz častejšie k štátnym zásahom. Medzi najpoužívanejšie metódy vtedajšej doby patrili: štátny nákup, skladovanie alebo ničenie časti úrody, regulácia cien, špeciálne úvery a dane, skupovanie účastín, preberanie úpadkových podnikov, podpora vývozu, colná ochrana domácej výroby a uskutočňovanie verejných prác na znižovanie nezamestnanosti. Taktiež sa zväčšovala úloha štátu ako výrobcu a vlastníka podnikov, dôležitých najmä pre potreby štátnej politiky, o ktoré súkromný sektor pre nízku rentabilitu alebo vysoké investičné náklady neprejavoval záujem. S cieľom posilniť ekonomický rozmach a zabrániť opätovnému poklesu v budúcnosti sa objavili organizovanejšie pokusy o štátne zásahy zahrňujúce hospodárstvo, vrátane spoločenského života.

Celému svetu sa tak onedlho prostredníctvom novej politickej ideológie národného socializmu predstavila efektivita riadenej, zmiešanej ekonomiky. Za najvýznamnejšieho

predstaviteľa tohto ekonomického prístupu (tzv. štátny intervencionizmus) v medzivojnovom období možno označiť Nemecko.

2 NÁRODNÝ SOCIALIZMUS

Aj navzdory tomu, že národný socializmus v nacistickom Nemecku vykazoval vynikajúce výsledky, v súčasnosti je zastávaný názor, že z dlhodobého hľadiska nebol tento systém udržateľný. Podľa tohto názoru sa Nemecko ekonomický ocitlo na pokraji kolapsu už v roku 1939 a tento stav dokázalo zvrátiť len rozpútanie druhej svetovej vojny. Najčastejším názorom je, že celkové príjmy štátu boli dlhodobo nižšie ako výdavky. Medzi rokmi 1933 až 1939 predstavovali príjmy štátu 62 miliárd RM a verejné výdavky 101,5 miliardy RM, pričom došlo k značnému nárastu peňažného obehu.

2.1 John Maynard Keynes

V rámci všetkých známych teórií sa hospodárskym princípom národného socializmu najviac podobá Keynesova teória, zdôvodňujúca nevyhnutnosť štátnych zásahov do trhovej ekonomiky.

Teória celkovej produkcie môže byť oveľa ľahšie prispôsobená podmienkam totalitného štátu ako teória výroby a rozdeľovania v podmienkach slobodnej konkurencie a značného stupňa *laissez-faire* vytvorenej produkcie.[1]

Prosperita (ekonomická) štátu a životná úroveň obyvateľstva je v prvom rade závislá od kúpyschopnosti spoločnosti. Zámerom bolo nájsť súvislosť medzi dopytom, výrobou a zamestnanosťou.

Ak v hospodárstve dôjde k poklesu dopytu po tovaroch, podnikatelia znížia výrobu a zároveň počet zamestnancov. Následne podnikatelia nemajú snahu rozširovať výrobu, klesá dopyt po investíciách, čo spôsobuje viacnásobný efekt, vyvolávajúci ešte väčší pokles dôchodkov (miezd a ziskov), čo vedie k znižovaniu spotreby a nezamestnanosti.

Keynes tvrdil, že ak sa zvýši dopyt po investíciách, dochádza k rastu výroby a zamestnanosti, čím rastú aj dôchodky, a tie vedú k stimulácii spotreby. Rast dopytu po spotrebných predmetoch opätovne vyvoláva ďalší rast výroby a zamestnanosti, ako aj rast dôchodkov.

Úlohou štátu je zabezpečiť rast efektívneho dopytu, dôchodkov a zamestnanosti.

Nerovnosť medzi ľuďmi nie je nutná pre rast bohatstva v spoločnosti, ale je mu prekážkou. V obmedzení majetkovej nerovnosti je možné vidieť možnosť, aby sa systém stál prijateľnejší a ľudskejší pre väčšinu populácie a zároveň budú vytvorené podmienky pre vyššiu výrobu, zamestnanosť a bohatstvo v spoločnosti.[2]

Podporuje takto zdanenie a expanzívnu monetárnu politiku orientovanú na podstatné zníženie úrokovej miery. Jediným prostriedkom priblíženia sa plnej zamestnanosti by mala byť rozsiahla socializácia investícii (zverenie veľkej časti investičných rozhodnutí do rúk štátu (bez nutnosti znárodňovania).[3]

Snaha učiniť kapitalizmus prijateľnejším pre masy a tím menej zraniteľným voči revolúciám, ktoré môžu byť produktom nespokojnosti s ním.

Systém, ktorý vytváral Keynes, je nazývaný „Novým liberalizmom“, ktorého úlohou je prechod od režimu ekonomickej anarchie k režimu, kde sú ekonomické sily zámerne riadené v záujme sociálnej stability a spravodlivosti.[4]

---

[1] KEYNES, J.M. *AllgeimeineTheorie der Beschäfigung, des Zinsesund des Geldes*. Einbeck: Duncker&Humblot. 1936. s 3.

[2] KEYNES, J.M. *Obecná teórie zaměstnanosti, úroku a peníz*. Praha: Nakladatelstí ESAV. 1963. s. 347.

[3] tamtiež

[4] LIPKA, D. a ŠŤASTNÝ, D. *Acta Oeconomica Pragensia, roč. 16 é.1*, J.M. Keynes, socializmus a hospodárska politika nacistického Nemecka. 2008.

Podstatným atribútom tak nie je odklon od tržných riešení v prospech centrálneho plánovania (kartelizácia, socializácia investícii, odklon od komoditných peňazí), ale samotné presvedčenie, že ekonomika je stroj a vláda jeho riadiacou jednotkou, bez ktorej by tento stroj pri prevládajúcej miere sofistikovanosti vôbec nefungoval.
Do polovice tridsiatych rokov existovala pokročila demonštrácia keynesovského systému. Bola ňou hospodárska politika Adolfa Hitlera a Tretia ríša.[5]
Hitler tvrdil, že národný socializmus je „socializmus v evolúcii“, socializmus v neustálom menení.
Nacisti boli presvedčení, že lepšou organizáciou ekonomického systému, je možné dosiahnuť výrazne vyššieho bohatstva. Nacizmus je programom permanentnej totálnej mobilizácie, ktorého cieľom nie je peňažný zisk, či iný ekonomický záujem.[6]
Ekonomický systém v zmysle nacizmu má byť ovládaný špecifickou skupinou osôb. V prípade Nemecka NSDAP, ktorá bola viacej spojovaná politickými záujmami ako ekonomickými. Úlohou nie je nechať veci plynúť, ale trvalo zasahovať skrz politiku spôsobom, ktorý povedie k vytýčeným cieľom.
Značné množstvo nemeckých podnikateľov podporilo nacizmus zo strachu pred komunizmom. Nacizmus totiž neusiloval o zrušenie súkromného vlastníctva, no na druhej strane sa súkromné vlastníctvo v ich poňatí stáva „prázdnym“. Cieľ je kartelizácia priemyslu a štátny dohľad nad ním.
Keynes odmieta priame centrálne plánovanie, avšak volá po spoločenskej kontrole podnikania. Pripúšťa, že vysoká miera štátnych zásahov môže spôsobovať problémy, ale len v prípade ak ich nebudú robiť „správny“ ľudia.
Pokusy o kartelizáciu boli v nacistickom Nemecku používané od samého začiatku. Na základe prijatého kartelového zákona získalo Ministerstvo ekonomiky právomoc vynútiť vznik a trvalé fungovanie kartelov. V priebehu roku 1937 bolo vydaných 80 nariadení, na základe ktorých boli spoločnosti prinútené pristúpiť k existujúcim kartelovým dohodám.[7]
Snaha o centralizáciu bola ďalej podporená zákonom o korporáciách z roku 1937, ktorý nariaďoval rozpustenie, fúziu či zmenu štruktúry všetkým spoločnostiam s vlastným kapitálom nižším ako 100 000 RM. Výsledkom bol zánik 20% všetkých nemeckých spoločností. Táto štruktúra, ktorá sa mnohým javila ako optimálna stredná cesta medzi kapitalizmom a socializmom, skončila v Nemecku v roku 1943, keď došlo k rozpusteniu 90% kartelov. Tým bola nastolená striktnejšia kontrola vládou. Pokiaľ podnikatelia nenakladali so svojím majetkom vo verejnom záujme, boli o neho pripravený začlenením do spoločnosti s podielom štátu.
Fiškálna politika nacistického Nemecka bola expanzívna, pričom veľkosť výdajov, slúžiacich vo veľkej miere k financovaniu verejných prác, sa dramaticky zvýšila po roku 1936. Verejné výdavky medzi rokmi 1932 až 1938 vzrástli štvornásobne. No cenový index za rovnaké obdobie vzrástol len o necelú pätinu. Deficit výdavkov vlády sa v roku 1932 pohyboval na úrovni 2% verejného rozpočtu. V roku 1938 to činilo už 35%.
A takúto fiškálnu politiku je možné označiť za keynesovsku, čo neznamená, že aj úspešnú.

2.2 Ekonomická udržateľnosť národného socializmu

Deficit štátu bol prevažne krytý špeciálnym systémom štátnych zmeniek (vlastných peňazí krytých reálnou prácou občanov, nezaťažených zahraničným dlhom), umožňujúcich takmer neobmedzené štátne nákupy.

[5] GALBRAITH, J.K.. *Money: Whence it came, where it went*. London. 1975. s. 237.
[6] RÖPKE, W. *Fascist Economics, Economica. Sozialismus und politische Diktatur*. Neue Zűrcher Zeitung, 18.01.1937. s. 93.
[7] NEWMAN, P. *Key German Cartel sunder the Nazi Regime*. The Quarterly Joumal of Economics. 1948. s. 576.

Týmto spôsobom sa národným socialistom podarilo nielen zbaviť závislosti od zahraničia a masívne vyzbrojiť, ale zároveň rozbehli ďalšie veľkolepé investičné projekty - napríklad budovanie novej infraštruktúry.
Nemecko si zachovalo vysokú úroveň spotrebiteľskej spokojnosti, stabilné mzdy, nízku nezamestnanosť a infláciu. Milióny pracujúcich mohlo byť vyplácaných štátnymi bezdlhovými peniazmi, ktoré následne míňali na nákup tovarov a služieb, čím vytvárali nové pracovné miesta.
Štátne zákazky súkromných firiem boli zväčša upravené tak, aby časť ich ziskov ostala zablokovaná povinným šetrením s možnosťou opätovného investovania v súlade s národným záujmom (napr. na obnovu strojov alebo rozvoj výroby). Týmto prístupom sa tiež súkromný sektor motivoval k ďalšej podnikateľskej aktivite. Práve povinné šetrenie ziskov, spoločne s prísnymi kontrolami, pragmatickým zdaňovaním, reguláciami cien a spotreby udržali v Nemecku vyvážený obeh peňazí a spotrebiteľskú dôveru. Aj keď objednávky od nemeckých podnikateľov zvyšovali štátne výdavky, blokovaním prebytkov zostala dôležitá časť finančných prostriedkov naďalej pod kontrolou štátu.
Väčšina ekonómov zastáva názor, že hlavným zdrojom financovania nemeckého hospodárskeho „zázraku“ bol narastajúci dlh, krytý z veľkej časti výmenou za cenné štátne papiere.
Nakoľko sa jednalo o štátne zákazky, obmedzovanie podnikateľov pri manipulácii so ziskom bolo chápané ako opodstatnené. Aj napriek pomerne nízkemu zhodnoteniu, boli štátne cenné papiere s ohľadom na hospodársky rast Nemecka a štátnu garanciu medzi investormi veľmi atraktívne. Ekonomická prosperita Nemecka spoločne s ďalšími úspechmi národného socializmu v tridsiatych rokoch, sa tak dostali do priameho konfliktu s liberálnym pohľadom na úlohu štátu (určovanie daní a dozor nad dodržiavaním zákonov).
Centrálne plánovanie národného socializmu nebolo typicky socialistické. Vláda vo väčšine prípadov podnikateľské aktivity a súkromné vlastníctvo rešpektovala. No nejednalo sa ani o hospodárstvo kapitalistické, nakoľko kľúčové oblasti ekonomiky mal štát plne pod svojou kontrolou.
Štátnym hospodárskym riadením a úplnou zamestnanosťou bol podnikateľ zbavený celohospodárskej krízy. Zároveň so sociálnym zmierom sa mu takto dostalo cennej slobody v tyle. Zostala podnikateľská kríza a kríza v jednotlivom obore, pretože hospodárstvo s plnou zamestnanosťou samo o sebe oslobodené od kríz, zmení trvalo svoju štruktúru práve v znamení úloh, dávaných mu štátom. Chcú prísne vedenie a pokyny zhora, zvykli si na ne a netúžia po väčšej voľnosti pohybu. Ich prianie sa obmedzuje v podstate na dvoje. Predovšetkým, aby zmizlo hospodárstvo nedostatkové, aby sa nemuselo behať za každým kilom medi alebo klincov a mohlo sa zase opravovať a investovať. Hospodárstvo hojnosti nesmie však zase viesť k tomu, aby podnik mal starosti, ako predať výrobky.[8]
Bez ohľadu na množstvo predpisov obmedzujúcich podnikateľské aktivity, s príchodom nového režimu zavládla medzi nemeckými podnikateľmi celková spokojnosť (práve preto vo výraznej miere podporovali Adolfa Hitlera). Predstavitelia NSDAP dokázali „vyváženým spôsobom“ presadzovať záujmy štátu, zamestnávateľov aj zamestnancov, čím stimulovali celé národné hospodárstvo. Zamestnanci mali garantované sociálne istoty a slušný plat, zamestnávatelia zákazky, pričom všetci spoločne museli podávať adekvátny pracovný výkon v „zdanlivý“ prospech celého národa.

2.3 „Ľudová ekonomika“ a nemecké technológie

Povojnové Porúrie bolo obrovskou kopou rozvalín potom ako krajiny patriace medzi víťazné mocnosti, odviezli značnú technologickú časť z Nemecka v rámci vojnových reparácií.

[8] WINSCHUH, J. *Podnikatel v nové Europě*. Praha: Nakladatelství Praha. 1941. s. 14.

Národný socializmus zdôrazňoval princíp, že robotníci a zamestnávatelia patria k sebe v zjednotenom celku a nemajú byť agitovaní proti sebe.
Čo môže zamestnávateľ robiť s dobrými vynálezmi a vylepšeniami, ak nemá vo svojej dielni žiadnych robotníkov, ktorí ich môžu využiť? Nič! A naopak: čo môže veľmi dobrý robotník robiť, ak nemá žiadneho zamestnávateľa, ktorého podnikateľské rozhodnutia mu poskytnú modernú technológiu? Nič! Princípom je, že tí, ktorí pracujú hlavou a rukami, zjednotení s národne uvedomelými zamestnávateľmi, patria k sebe ako tím. [9]
Nacistickému režimu v Nemecku sa podarilo niekoľko miliónov nezamestnaných z väčšej časti za 2 a pol roka znova zamestnať. Za päť rokov sa dosiahla plná zamestnanosť. Pritom samotné zbrojenie začalo po prvýkrát hrať významnú „ekonomickú úlohu“ až v roku 1939:
Príjem nemeckého zbrojného priemyslu od roku 1933 do 1939:

1933/34	1,9 miliardy RM	4% HNP
1934/35	1,9 miliardy RM	4% HNP
1935/36	4,0 miliardy RM	7% HNP
1936/37	5,8 miliardy RM	9% HNP
1937/38	8,2 miliardy RM	11% HNP
1938/39	18,4 miliardy RM	22% HNP

Je veľmi otázne, či sa Nemecku z „hospodárskej krízy“ podarilo dostať len cestou vyzbrojovania alebo za týmto úspechom stáli aj skutočné výsledky „duševného vlastníctva“ Tretej ríše. Ekonomická situácia tzv. „Weimarskej republiky“ začala porážkou v 1. svetovej vojne. Nemecko skončilo v obkľúčení a bezprecedentnej blokáde.
„Do roku 1918 zomrelo na podvýživu a choroby spôsobené blokádou, približne 763 tisíc Nemcov.[10] „Podpis prímeria 11. Novembra 1918 blokádu Nemecka nezrušil.[11]
Prostredníctvom demokratických volieb sa dňa 30. januára 1933, ujal Adolf Hitler vedenia Nemecka (ako sa za veľmi krátky čas ukázalo, bohužiaľ pre celý svet a najmä samotné Nemecko).
Nakoľko Adolf Hitler prevzal totálne zbankrotovaný štát (zlaté rezervy pokryli časť reparácií z porážky v 1. svetovej vojne). A preto nemecký ľud vkladal nádej do tohto „nového začiatku“. Nacisti sľúbili „prácu a chlieb“ a svoje slovo aj dodržali (nesľubovali, že chcú ešte viac miliónov životov Nemcov obetovať pre budúcnosť ich predstavy o „Tretej ríši“).
Pre nacistov bolo nemysliteľné, aby sa Nemecko kvôli rozvoju ekonomiky zadlžilo u bankárov medzinárodných finančných kruhov (tých považovali všetkých za Židov). Nemecko sa nemalo dostať už nikdy viac do systému tzv. „otroctva úžery“.
Jedným z významných projektov Tretej ríše, bola výstavba diaľnic. No nejednalo sa o klasickú metódu s využitím asfaltu, ale o betónové platne. Cesty boli tvorené spájaním betónových platní na udupanej zemi. Všetky dostupné materiály boli dostupné v Nemecku. Vynálezcami a budovateľmi boli strojári Dr. Todt a Dr. Dorpműller.
Obdobne sa postupovalo aj v ďalších odvetviach nemeckého priemyslu. Snahou bolo docieliť jedinečné technologické riešenia tej doby, ktoré by Nemecku poskytli prevahu. Ale najmä nezávislosť týchto riešení na dovážaní surovín. V prípade uvalenia sankcií alebo blokácií, by samozrejme všetky nacistické plány dostali zásadnú trhlinu a je zrejme, že bolo by oveľa jednoduchšie predísť samotnej vojne. A to včas. Je to jeden z hlavných dôvodov prečo sa v konečnom dôsledku všetky vtedajšie mocnosti rozhodli urýchlene skoncovať s politikou nacistického Nemecka. V prípade, ak by technologický pokrok nemeckých vedcov dosiahol

[9] https://hlavuhore.wordpress.com/2008/06/11/zivot-v-tretej-risi-a-svetova-politicka-situacia-vtedy-a-teraz-friedrich-kurreck-vl-menom-dipl-ing-reinhold-leidenfrost/
[10] PETERSON, H. C. *Propaganda for War: The Campaign Against American Neutrality* 1914-1917. Oklahoma Press. 1939. s. 151
[11] TANSILL, CH. C. *The Roosevelt Foreign Policy* 1933-1941. Greenwood Press. 1975. s. 258

stanovené ciele skôr, ako bola dosiahnutá kapitulácia (napr. zostrojenie atómovej bomby), následný priebeh by bol zjavne katastrofálny pre celý svet.
Pokiaľ išlo o nemecký autopriemysel, ten stanovil cenu automobilu medzi 1350 až 1600 RM. Tieto ceny boli príliš vysoké. Preto prišiel konštruktérsky návrh Dr. Porsche, v podobe vozidla (Volkswagen), ktoré bolo v každom ohľade nové a bolo najvyrábanejším a najekonomickejším vozidlom na svete. Jeho cena sa pohybovala na úrovni 995 RM a táto suma sa dala splatiť v malých splátkach.
Na udržanie Nemecka nezávislým od medzinárodných financií, nemeckí chemici vyrábali pneumatiky z dostupných nemeckých materiálov, najmä uhlia, prostredníctvom polymerizácie. Továrne Buna v Merseburgu boli postavené práve za týmto účelom.
Nemecká technologická vynaliezavosť (Dr. Fiscner a Dr. Tropsch) prišla aj na spôsob ako aspoň čiastočne zabezpečiť dodávky paliva pre nacistický režim, bez nutnosti zahraničných dodávok. Jednalo sa o skvapalňovanie uhlia - podnik LeunaWerke v Merseburgu.
Nemci vynašli aj prvé praktické umelé vlákno a fabrika na umelé vlákno dodnes stoji v Schwarze, v Thűringene. V kombinácii s vlnou, tento materiál prispel k pohodlnému odevu. [12]
Na nákup železnej rudy s vysokým obsahom železa (81 až 85 %) zo Švedska, nemalo Nemecko dostatok finančných prostriedkov (v období pred samotným rozpútaním vojny). Z tohto dôvodu bol vyvinutý nový proces „Krupp-Rennov proces“. Tento umožnil používať domácu železnú rudu, s obsahom iba 23 až 26 percent železa. Nemeckí baníci, oceliari a kovospracujúce firmy sa vyhli závislosti na finančných prostriedkoch zo zahraničia.
Kroky, ktoré nacisti postúpili v ekonomickej oblasti, do určitej miery ohrozovali kapitalistický systém, pričom hrozil aj pokles ceny zlata. Mnoho ľudí zo zahraničia prejavovalo vysoký záujem o Nemecko v tom čase. Nemecké technológie boli na vrchole technického rozvoja.
Je na zváženie možno aj tvrdenie mnohých historikov, že na zastavenie Nemecka v tomto období, bola vojna nevyhnutným krokom. Svoje tvrdenia opierajú najmä o výrok Winstona Churchilla počas prejavu v roku 1946 vo Fultone: „Vojna nebola vedená len kvôli porážke fašizmu v Nemecku, ale na dobytie nemeckého exportného trhu. Ak by sme chceli, mohli sme vojne zabrániť v roku 1935, bez jediného výstrelu, ale neželali sme si to“. Z tohto výroku je možné usúdiť, že technologický pokrok Nemecka nebol v očiach ostatných mocností vnímaní veľmi pozitívne. Ale ak by došlo z ich strany k vyvolaniu určitých krokov voči Nemecku, do roku 1938, mohlo by to byť v konečnom dôsledku vnímané ako útok agresora voči zvrchovanému štátu. Adolf Hitler svojou bezočivosťou a plánoch o budovaní životného priestoru pre Nemecko, sa sám stal agresorom, ktorého bolo nutné zastaviť. Bez ohľadu na pozitívne ekonomické prvky, v prvých rokoch svojej vlády.
Môžeme na základe vyhlásenia Svetového židovského kongresu, a to krátko po Hitlerovom nástupe k moci usudzovať, že videli v nacistoch v tom čase viac ako bolo zrejme zvyšku vtedajšieho sveta. Deklarácia Svetového židovského kongresu bola publikovaná londýnskym Daily Express 24. Marca 1933 na prvej strane: „ *14 miliónov Židov, po celom svete, je zjednotených ako jeden muž vo vyhlásení vojny proti nemeckému prenasledovaniu svojich bratov vo viere.. Svetové židovstvo sa rozhodlo nemlčať tvárou v znovu oživenému štvaniu stredoveku..*“

3 ZÁVER

Nie je možné zotrvať naveky na rovnakom stupni vývoja. Technický rozvoj je neobmedzený a nová civilizácia vždy spôsobí zánik tej starej. Štát fungujúci na centralizácii a plánovaní musí prekonať v končenom dôsledku kapitalizmus. Oproti plánovanej ekonomike nacistického Nemecka boli Veľká Británia a Francúzsko jednoducho neschopné vyzbrojenia

[12] Pozn. č. 9

v tom čase. Sústredenie sa na jeden cieľ, prevaha štátneho záujmu nad súkromnými, pre moderný národ (ktorý sa s vážnosťou púšťa do vojny). Toto bol bohužiaľ skutočný cieľ nacistického Nemecka a jeho technologického pokroku tej doby.
Sily, ktoré tlačia k centralizácii moci a plánovaniu výroby a spotreby boli drvivé. To bol smer, ktorým sa uberal svet a vojna celý problém len vyjasnila. Tí, ktorí sa pokúšali tento pohyb pribrzdiť, ho nakoniec len urýchlili. Mussolini, či Franco, ktorých poháňalo neskrývané odhodlanie obnoviť minulosť, zachrániť súkromné vlastníctvo a zničiť marxizmus, v konečnom dôsledku zničili práva, ktoré chceli obhajovať. Kolektivizačný pohyb neustával a niektoré jeho formy boli síce sľubné, no iné hrôzostrašné.
Napríklad len samotný socializmus je definovaný ako spoločné vlastníctvo výrobných prostriedkov (nikto si nekladie otázku, že čo znamená spoločné). Jediný druh nespravodlivosti vidí v ekonomickej nespravodlivosti, ktorá musí zaniknúť spoločne so súkromným vlastníctvom. V tejto schéme nie je miesto pre nacizmus - nedemokratickú formu socializmu.
Je otázne, či kapitalistická demokracia nemôže nepodľahnúť modernejšiemu, vojenský výkonnejšiemu nacizmu (ktorý by predstavoval nekonečne horší spôsob života - krok dopredu, smerom k zlu).
Nacizmus možno tiež definovať ako oligarchický kolektivizmus. Dokáže sa vyvarovať chaosu a nesúladom kapitalizmu, kríz a depresií, nezamestnanosti a stagnácie, a nepochybne môže existovať dlhodobo. Má však tendenciu etablovať kastový systém založený na „rasovej nadradenosti“. A toto by sme mali mať na pamäti neustále.

Literatúra

1. GALBRAITH, J.K. *Money: Whence it came, where it went*. London. 1975. 374 s.
2. KEYNES, J.M. *Allgeimeine Theorie der Beschäfigung, des Zinsesund des Geldes*. Einbeck: Duncker&Humbolt. 1936. 341 s. ISBN 10: 3428150481.
3. KEYNES, J.M. *Obecná teórie zaměstnanosti, úroku a peníz*. Praha: Nakladatelství ESAV. 1963. 370 s.
4. LIPKA, D. a ŠŤASTNÝ, D. *Acta Oeconomica Pragensia, roč. 16 é.1*, J.M. Keynes, socializmus a hospodárska politika nacistického Nemecka. 2008.
5. NEWMAN, P.. *Key German Cartel sunder the Nazi Regime*. The Quarterly Joumal of Economics. 1948. ISSN 0033-5533.
6. PETERSON, H. C. *Propaganda for War: The Campaign Against American Neutrality* 1914-1917. Oklahoma Press. 1939. 359 s.
7. RÖPKE, W. *Fascist Economics, Economica. Sozialismus und politische Diktatur*. Neue Zűrcher Zeitung, 18.01.1937.
8. TANSILL, CH. C.. *The Roosevelt Foreign Policy* 1933-1941. Greenwood Press. 1975. 669 s. ISBN 0-8371-7990-4.
9. WINSCHUH, J.. *Podnikatel v nové Europě*. Praha: Nakladatelství Praha. 1941. 31 s.

Kontaktné údaje

JUDr. Rastislav Pirkovský
mekpirky@gmail.com
UPJŠ - Právnická fakulta
Kováčska 26, 040 01 Košice
Slovenská republika

MYTHS ABOUT THE FIRST SLOVAK REPUBLIC (1939-1945) ON THE PAGES OF THE CONTEMPORARY PRESS

Miroslava Dobrotková

Abstract

This paper focuses on the analysis of the depiction of some events associated with the establishment of the first Slovak Republic (1939-1945) on the pages of the Slovak contemporary periodicals. Based on an analysis of two periodicals of the ruling party, HSĽS - the Slovák weekly and the Slovenská republika daily, it describes, how the periodical press presented the Czech-Slovak relations to the public and how it explained to the reader the necessity of participation of the Slovak army in the war against the Poland alongside the German army.

Key words: *Slovak Republic, propaganda, Czechoslovak relations, Poland, Slovák weekly, Slovenská politika daily*

Introduction

In recent years, we have seen an increase in nationalist and extremist views in Slovakia, not only in political life but also in the average, everyday communication of the inhabitants of Slovakia. Particularly on the social networks, it is becoming increasingly popular to share different legends and myths created and built especially during the fascist Slovak state by contemporary propaganda. Scientific studies and researches who are focused on this period of the first Slovak Republic are questioned, or it is presented that the topic of the Slovak Republic is controversial, and the findings of historians and other scientists about this period are contradictory even in basic facts. Within the framework of this contribution, we will concentrate our attention on the two myths related to the period of the Slovak Republic and that is firstly the beginning of the Second World War, as presented by the periodic press, secondly on the descriptions of the Czech-Slovak relations just before and after the establishment of the Slovak Republic and the related legend of the millennial effort of the Slovaks about their statehood and finally the questions about the war on Poland related to the Slovakia and the participation of the Slovak army in this war.

1 About the propaganda

"All propaganda is lies, even when one is telling the truth" (George Orwell, 1942)

Nowadays, the propaganda is perceived to be negative term, but in the past it has been perceived neutrally and as one of the ways acceptable even in a democratic society in order to leverage public opinion to the communicator´s side. Propaganda was perceived as a unitary element in the society.

For example during the First World War, American media on request of President Woodrow Wison managed to change the minds of Americans against the Germans. Edward Louis Bernays in 1928 wrote that propaganda is a logical consequence of democracy. (Verner, 2011, p. 11-12) Adolf Hitler in his book Mein Kampf from 1924, in the chapter about the war propaganda, described that propaganda should be focused on the masses of people. He then stated that masses are rather silly and are not guided by logic and knowledge but by faith in certain things. People prefer the display of certain facts in a known way within the frame. Therefore, some conclusions need to be repeated constantly using simple words and from different sources. (Hitler, 2000, p. 129-134) During the Communist era in Czechoslovakia, the

propaganda was considered as a relevant, legal and necessary method how to communicate with the public.[1]

Taylor believes, the reason lies in the fact, that the public associates the concept of propaganda with totalitarian regimes. (Taylor, 20016, p. 13) We consider propaganda is what the enemy uses against us, but we call our own practices as the informing or persuasion. (Taylor, 2016, p. 19) There are many definition of propaganda. According to Richard Taylor, propaganda is a process; it is an attempt to influence the public opinion of audience through the transfer of ideas and values. (Taylor, 2016, p. 31) Köpplová and Jirák define propaganda as the efforts of elites to influence the course of the media in their favour and as an example of planned and strategic communication. (Jirák, Köpplová, 2009, p. 369-371) Vybíral has written that the goal of propaganda is to get the recipient of the message to his side by manipulation and to influence his / her views and, in particular, active attitudes. (Vybíral, 2009, p. 165) Verner defines propaganda as "the purposeful dissemination of ideological, informative, regulatory and stimulating initiatives aimed at achieving reconciliation with a widespread ideology". (Verner, 2011, p. 17)

Taylor points out the active role of propagandist, although the propagandist has not be the same person as the author. If we are not able to identify the connection between the propagandist and the audience, there is no propaganda. (Taylor, 1979 in Foulkes, 1983, p. 9) Propaganda is always voluntary and intentional; that means authority establishes the institution for propaganda (office or ministry) and this institution develops the rules of dissemination of information (Ellul, 1973 in Foulkes, 1983, p. 10)

All the above-mentioned authors agree that propaganda is a deliberate activity, directed towards a designated audience and its purpose is to influence the attitudes of the recipients.

The specifications of the war propaganda (which is the subject of this paper) were discussed in detail in Laswell's publication *Propaganda Technique in World War I* (1938). He described many ways how to shape the public opinion in the war situation, as abuse of historical prejudices, demonizing the enemy, finding the guilty for the outbreak of the war (this is always a disparaging party) etc. (Laswell, 1938)

2 Analysis of the chosen periodicals

The power of HSĽS propaganda was fully demonstrated after the declaration of Slovakia's autonomy. In less than three months, the government destroyed most of the opposition's press, placing its commissioners in news and magazine editorial offices, banning the work of the Communist Party and swallowing other parties. (Lipták, 2011, p. 43)

Within the framework of the radical wing of the party, however, there have been long-standing tendencies for the creation of an independent Slovak Republic. For example, Ferdinand Ďurčanský from the thirties wrote in the "*Nástup*" review about the change of the arrangement of Czechoslovakia. (Lipták, 2011, p. 44)

From October 1938, all press was given under the supervision of the Propaganda Office. Its existence, however, was only legalized in 1941 by a government regulation. Preliminary censorship was carried out by either district officials or police headquarters. (Serafínová, Vatrál, 2005, p. 102)

Both analysed periodicals, Slovák weekly and Slovenská politika daily, were the central political Slovak press. The part of the content of the Slovák weekly was created by selection of the most important articles from Slovák daily and Slovenská politika daily, which was leading official political press of the ruling party HSĽS. This periodical was designed for rural readers. Slovenská politika has tabloid character. (Serafínová, Vatrál, 2005, p. 105)

[1] In 1978, the new official Czechoslovak handbook for higher education defined propaganda as an instrument for bringing together citizens and the state and building socialism. See more in Chlupáč, M. Propaganda jako společenský jev, 1978, p. 7)

We have analysed the issues from the January 1939 to the end of September 1939. By the analysis of chosen articles we will demonstrate how the official propaganda had changed in the context of changing contemporary international and internal situation. Since the Slovák weekly contained several articles previously published in Slovenská politika, we have analysed the articles in Slovenská politika in particular, and the analysis was supplemented by selected texts from the Slovák.

2.1 About the Czechoslovak relations

In June 1938 HSĽS representatives drew up the third proposal of Slovak autonomy. Unlike previous attempts in the years 1921 and 1930, the Czechoslovak government, headed by Milan Hodža, has shown an effort to resolve this issue, or at least to negotiate it. In the days of the Munich crisis (September 1938), the Czechoslovak Government and the HSĽS representatives discussed the future status of Slovakia within the Czechoslovak Republic. Lipták saw reasons in the facts that HSĽS was stronger and more influential in 1938 than in the previous years, and the central government abandoned the perception of the united Czechoslovak nation on the ethnic principle and emphasized rather political unity. Last but not least, the political parties across the political spectrum understood that centralization is unsustainable in the international political situation. (Lipták, 2011, p. 33) According to Rychlík, for the representatives of the Czechoslovak government autonomy was not acceptable. Czechoslovak MPs did not trust the autonomists' claims that they didn´t intend to break the republic. However, the government, especially Hodža and Beneš had agreed with a certain strengthening of the country's landscapes and with the decentralization of Czechoslovakia. By the end of 1937, Milan Hodža as a chairman of the Czechoslovak government, had appointed MP´s Ján Lichner to work out decentralization of the state administration. However, Rychlík stresses that without the Munich dictate, Slovakia's autonomy would not be possible. (Rychlík, 2015, p. 141, 153) Declaration of Autonomy at the assembly in Žilina on October 6, 1938 Rychlík even calls HSĽS's dictatorship for other political leaders. (Rychlík, 2015, p. 155)

In the end of the year 1938 the concept of autonomous Slovakia within Czechoslovakia dominated. Radical views on the creation of an independent Slovak Republic have not been resolved, but the party has accepted them as the goal of its politics. (Lipták, 2011, p. 37) However, the official foreign politics of Tiso´s government orientated to the Germany aggravated Czechoslovak relations and led to the alienation of the Czechs and Slovaks. (Rychlík, 2015, p. 161)

After the adoption of the autonomy, the requirements for reducing the number of Czech officials in the Slovak authorities and their gradual transfer from Slovakia were at the forefront. (Rychlík, 2015, p. 165-166)

The effort to expel Czechs from Slovakia began a few days after the declaration of the independent Slovak Republic (14 March 1939). On 18 March 1939, a state employees with Czech nationality were dismissed. Mottos like "Czechs to Prague by foot", "Czechs back off" became passwords of government officials. (Lipták, 2011, p. 60-61) The complete expulsion of Czechs from Slovakia was not real. These citizens were irreplaceable in some sectors of the Slovak economy. However, they were often attacked and accused by contemporary propaganda from hidden or open hostility towards the Slovak Republic. (Hradská et al., 2015, p. 190) Representatives of public and political life began to spread hatred towards members of minorities, Jews and Czechs. Karol Murgaš demanded the cleansing of Slovakia from foreign elements, which, besides Jews, also meant Czechs. Alexander Mach in February 1939 in a speech in Rišnovce publicly demanded the independence of Slovakia. (Lipták, 2011, p. 44) Extremist Ľudovít Mutňanský in the Slovak broadcasting of the Vienna Radio called for the expulsion of Czechs from Slovakia. (Rychlík, 2015, p. 166)

On the pages of contemporary press are these facts presented as follows:
Slovenská republika of 3 January 1939, on the front page in the extended report and in the editorial, deals with Czechoslovak relations in the economic questions. The report points to the need to solve the question of Czech employees in Slovak offices. Otherwise, both articles describe Czech-Slovak relations correctly, they deal with economy and prosperity.
On the front page of the text "*What do Slovaks Want to Have in the New Year?*" journalists published statements made by Slovak politicians on Czechoslovak relations. Prime Minister Tiso said he considered President Hácha's visit to Slovakia as a way of improving Czechoslovak relations (he said, "*good will*"), if the President confirms that the Slovaks are "*lords on Slovak territory*". He pointed out the need to promote the equality of the Slovak and Czech nations within one state. Karol Sidor wants the idea of unification of the nation on the political field, which is an evasive answer given. Sidor mentions one nation, but he certainly did not mean Czechoslovak. From this answer it is possible to deduce from the lines that he expressed the greater autonomy of the Slovaks. Pavel Teplanský wants to cooperate with the Czechs especially in the economic field, seeing the possibility of strengthening the entire republic. What's more funny, the head of the propaganda office in Slovakia, Alexander Mach is asking Czech newspapers to follow the truth.
Interesting Editorial "*Clean Wine to the Glass!*" about the issue of Czechoslovak relations was published by Slovenská politika on January 8th. The main idea of the text is that it criticizes the generalization of phenomena and the confusion of verified facts and claims of untrustworthy witnesses or allegations. With this criticism, we can agree now. Non-objective, however, makes the text its conclusion, in which the author blames of these practices only one side - the Czech employees who were dismissed. Slovák weekly issue of January 13, 1939 also brings information about the dismissing of Czech employees. In a short article titled "*The Slovak Government knows what it is doing*," the author assures the readers that the Czech employees are dispatched according to plan and these places will be occupied by the Slovaks. At the same time, he writes about the "*benevolence*" of the Slovak authorities towards the citizens of the Czech nationality, who leave voluntarily and by their own decision. In an article of January 22, the Slovák describes the situation how are the Slovak employees persecuted in the Czech lands, and denotes it as a curse.
An editorial in Slovenská republika from January 18 denotes Czechs as a "brotherly nation", writes that the representatives of the central government enjoy respect in Slovakia, designating them as representatives of the "new" Prague, which respects the equal rights of the Slovaks and Czechs. On the other hand, although the article mentions the autonomy and federal arrangement of Czechoslovakia, the author emphasizes Slovak statehood and Slovak autonomy. At this point, we can also identify the legend that the Slovak statehood is the result of a thousand-year effort of the Slovak nation, which is not proven by the historical documents. In the same edition, on the other hand, the periodical quotes from the Czech magazine *Brázdy* about the Church relations of Czechs and Slovaks. Although the article mentions the hidden hatred of the Slovaks against the Czechs, it is clear from the text that it is meant as a past. He even points out that the hatred of the Slovaks is not directed towards all Czechs, but towards the representatives of an unfair power struggle and a corrupt politician. Slovak policy refers to this text as "a remarkable voice in the Czech magazine" and brings its parts without comment, despite the fact that the article is contrary to the propaganda about the difficult fate and suffering of the Slovaks in the common state. Oppositely describes the relationship of Czech citizens to Slovakia, Slovák on 5 February, in the article "*Who Grieves on the Slovak Government?*" It describes the case of "*Mrs. Korda*" allegedly a teacher in Piešťany, who has been "*staggering*" for Slovakia for 18 years. The text further writes about the "*revenge*", which the allegedly dismissed Czechs prepare for the Slovaks. The article, even in a few sentences, mentions Czechs and Jews as the same danger to the Slovak nation.

In the text of February 12, on the third page below, the Slovakian published an article with the inscription "*Cruel Insults to the Slovaks*". The article cites from the letters written by the Czech citizens, which the editorial had allegedly received. Letters should contain curses, "*brutality*" and insults. In the article, one of the sheets is also listed. The specific source of this information or sheets is not even the initials of the name. On February 19th, the Slovák edition publishes the alleged reactions of the Slovaks to the controversial Czech letter published in the previous issue. This article also published an extensive article, which states that attacks by Czechs on Slovaks are on a daily basis and there are so many that they cannot even react to them. In the second part, the author quotes from the Czech press about the decrease of the number of Czech tourists in the spa in Piešťany. Enough cynically is the conclusion of the text, where the author basically writes that Czechs who go to Slovakia to spend money are, unlike other Czechs, welcome. The Slovenská politika daily of 4 February 1939 on page 3 in the article "*Beneš' Policy in Romanian Lightning"* accuses the previous Czechoslovak Government for the fact that Czechoslovakia, due to the agreement of Munich, had lost considerable territory in favour of the neighbouring states. The author even agrees that if Czechoslovakia were to negotiate an alliance with Italy, it would not be forced to subordinate the decision of the Powers in Munich.

At the beginning of March 1939, simultaneously with the deterioration of the international position of Czechoslovakia, the selected periodicals get tough with the criticism of the representatives of the federal government. On the headline of Slovenská politika of March 3, 1939, the author criticizes the Czech government that it has not made a hard start against the left-wing representatives ("*... until the Prague government will establish concentration camps and send Beneš´s funs there - there will be no internal consolidation in the Czech Republic. "But we recommend the Czech government: take the skateboard in hand and squeeze out the Czech community of people who are the biggest and most dangerous enemies of the independence of their homeland ...*") The article is placed in the centre of the title page, framed and marked with inches. The biggest part of the title is greatly attracted by the fact that it is named "*THERE WILL BE HARD TIMES ...*" The text is published in different types of scripts, as a result of which some parts of the phrases are highlighted and, moreover, understandable even without reading the whole text. There are particularly highlighted the words and phrases referring to the crisis in the state, such as the word "*threat*", "*vigorous acts*", "*skull*", "*doing propaganda against the government*", "*Moscow Radio*" and so on. Slovák weekly on March 3rd brings criticism of the Czech press, which the Slovaks call "*traitors*", "*non-educators*", and so on. The Czech press is referring to the article as "*pretentious*", trying to attacks on Slovakia and to restore the old regime, and accuses it of interfering with the affairs of the Slovak state.

Since 14 March 1939, the periodicals fully participated in the dissemination of legend that the establishment of the independent Slovak Republic was the result of the Slovaks' millennium-long struggle for their own statehood. The editorial of Slovenská politika of March 15, 1939 writes about the banning, curb, humiliation, bloodshed, etc., which the Slovaks had "*to bear in the past*" in the previous states, and so in Czechoslovakia. The Czech party is accused of constantly suppressing the "*living rights*" of the Slovaks and of adapting the results of the work of the Slovaks. On the same page, newspapers are translating the Adolf Hitler Decree on the occupation of the Czechs by the German Army and on the reasons for the occupation. The report, in almost every sentence concerning the Germans' assertions about the persecution of the German minority in Bohemia, contains the word "*probably*", so the author did not allow these statements to be presented as facts despite the opinion expressed by the German official propaganda.

2.2 About the war against the Poland

In March 1939, after the establishment of the Slovak Republic, relations between Poland and Slovakia were correct. Poland was among the first to recognize the existence of an independent Slovak Republic. Slovak politicians understood this gesture as a favour from Poland. In the spring of 1939, even the creation of the Slovak-Hungarian-Polish alliance was considered as a counterweight to the German influence in the Central European space. During 1939, however, Slovak-Polish relations deteriorated and in August 1939 Polish diplomacy gave the Slovak government a clear indication that it regarded it as an instrument of German politics. At the turn of August and September 1939, both states were in a state of war (Hradská et al., 2015, p. 50-51)

The participation of the Slovak army in aggression towards Poland alongside Germany was enforced by most political and military officials. Politicians saw an opportunity to re-establish annexed areas in Spiš, Kysuce and Orava in the war. Part of the preparation for the war was also extensive propaganda which was spread not only in periodicals. For example, at the end of August 1939 an anti-Polish demonstration took place in Bratislava. On September 28, in Slovak Radio, Prime Minister Tiso announced that the German army would jointly defend Slovakia against Polish aggression. The German troops were already on the territory of the Slovak Republic at the time of their appearance. On August 29, 1939, the Bernolák Field Army Command was established in Spišská Nová Ves. Its forces, on the command of Germany, attacked Poland on September 1, 1939, in Spišská Belá and Polish village Nowy Targ. Slovakia has become a direct participant in Poland. Because in the interior of Poland, Slovak troops reached places inhabited by a large number of Slovaks, Ruthenians and Ukrainians, they were welcomed as liberators. The Slovak Army withdrew from the territory of Poland until the first October week of 1939. Overall, its deployment in the wars was not significant. Losses on the Slovak side reached 24 fallen and 11 injured. (Klubert, 2016, p. 61-64) Slovakia's participation in the war, however, had lead to even more dependence on Germany. (Hradská et al., 2015, p. 51)

An extended report published in the Slovenská politika of January 3, 1939, with commentary on second page highlights the patriotism and heroism of Slovaks living in Polish occupied territories. "*It is difficult to buy a nation so conscientious ...*", "*... we are proud of our Slovaks."* The report is about the event when the Slovak children rejected the Polish teacher and asked for the nomination of the Slovak teacher, and how the Polish government subsequently tried to "*buy*" Slovaks with expensive goods (at that time) handed out free of charge, such as coffee, sugar. The source of the message is unclear (the report was recently published).

Slovenská politika from January 4, on the page 3 publishes information about the ten Orava villages in Poland requesting a connection to Slovakia. Again, the source of the message is untrustworthy (the information "*coming to us ...*"). Formally, the text is marked as a news, but it contains many judgments. In addition, the text is based on assumptions as if it were facts, for example: "*... they are forced to appeal to Poland's conscience ...*", "*... the hardness of the Polish authorities plunges on the Slovakian man, wants to erase his affection for Slovakia*", The report further mentions the punishment that a Slovak boy who has signed up to Slovak nationality has received. Here is as the source mentions the boy's full name. Furthermore, the report again, without mentioning the source, describes persecution of the Slovaks for cultivating their culture.

During the summer of 1939, news as Poland destabilized Europe began to multiply. In the issue of Slovenská politika of August 10, 1939, on the front page there is the article, which indicates the Polish politicians as the "*blind people*", leading Europe to the disaster. The title is stacked in capital letters in the size bigger than normal subtitles, and the whole text begins at the centre of the page, so it is clearly visible and attracts attention. Part of the text is plotted

with a different type of font (with larger spaces between the letters). These are words that mean Poland as a threat, for example: "*Straight to the war*", "*Bomber of Gdansk*", "*It will be bad*", "*The final chapter of Polish history*". The article also refers to deception as saying the Polish press claims that Slovakia has provided its area to the German army for an offensive against Poland and claims these as "*lies*". However, at the time of publication of this article, the German units intending the attack against Poland were really already present and in a relatively large number (for more details see the monograph of Tomáš Klubert *Slovak Army in the Second World War*). In the same edition, Slovenská politika provides a commentary on the city of Gdansk, which Germany has requested in its administration. The article states that the city has always been completely German and therefore there is no reason not to be part of the German administration. The article also agrees that Poland does not respect the German nationality of the Gdanska population and, moreover, it damages their economic interests. The next day, on August 11, 1939, Slovenská politika filled almost the entire title page with reports of the Polish-German conflict. However, for the first time, she pointed out that it is Slovakia's duty to join Germany on the attack against Poland (if Poland provoked the attack). As a reason, our moral commitments to Germany, to which Slovakia is grateful for its autonomy and protection for the division of Slovakia between Hungary and Poland, are grounded. In addition, the article emphasizes that Slovakia is a German ally. The text also presents the assertion that without the protection of Germany, the Slovak nation would cease to exist. The words "*the extinction of the Slovak nation*" are drawn in a much larger font than the rest of the text. The other side brings a few articles on the situation in Poland, where newspapers say that "*the Polish nation did everything on its own to get into this situation*," It writes about "*the terrible suffering of our brothers*" in the territories occupied by Poland, the "*Polish aggression*" In the article "*The Polish heavy industry body dreams of the destruction of Germany in the way of Carthage*," the author writes that the Polish press even calls for the complete destruction of the German Empire so that "*it does not leave the rock on the rock ...*" The issue of Slovenská politika from August 25 states on the first page the big title "*It really wants a war?*" With the subtitle "*Poland can still save peace*". In the middle of the page there is another headline about the occupation of the city of Gdansk by the Polish army. The periodical refers to the Polish side as the sole responsible for a possible outbreak of armed conflict and a single aggressor, for example, "*The Polish do not keep on preparing for the war ...*", "*Even women had to handle – on fortification works*." All are phrases in bold capital letters. The main article on the headline provides "*guaranteed information*" on the "*secret mobilization*" of the Polish army at the German border. However, it does not explain how the log came to information on a secret military operation. Interesting text in this issue of Slovenská politika is a report from the city of Čadca. The author very skilfully puts in contrast the ongoing folk festivities in Čadca and the associated peaceful atmosphere in the city and the alleged persecution of the Slovaks a few kilometres away on Polish territory. In this context, he stresses the need for the Slovak army to participate in the war against Poland, or as it calls in the liberation of the Slovaks. The Slovák daily of 1 September, writes paradoxically about the release of international tension, but also about the "*trespassing*" (not attacking) the territory of Poland by the German troops. Poland is said to be the main culprit for occupying its territory by German troops. In relation to Slovakia, Poland is strictly asked to release the occupied Slovak communities in the north of Slovakia (the headline "*Return us back what you took*"). It should be noted that the occupation of Slovak municipalities is considered exclusively as an act of Poland, the participation of the Powers in this act is concealed. In the issue of Slovenská politika from Saturday, 2nd September, the title "*Germany has to reach for the gun*" is on the front page. The article reiterates that the Poles were the cause of the war, and Germany had no choice because it had to protect the people of Gdansk. On the front page there is also a report from the northern Slovak municipalities, which the Slovak army frees

under the Polish occupation. The report is written as a report from the sporting event: "*the winning process of ours*", "*the Poles are receding*", "*there is amazing enthusiasm*", "*it cannot even be described what the enthusiasm is*," "*our flags are everywhere*." The course of combat itself is described only as "*a few shots have been shot*". Weekly Slovák in the September 2 edition issue is focused on the war in Poland only marginally. On the cover page it published a brief report on the shooting of a German official moving to the border with Poland. Polish soldiers are referred to as "*blatant invaders*" who hard hurt an innocent victim. However, the article does not explain why an official, a civilian, was at the time of the ongoing conflict on the front line. On the other hand, the Slovák brings a brief summary of the history of the villages in Spiš and argues that these territories belong to Slovakia. The next day, i.e. on September 3, Slovenská politika provides information on the progressive liberation of Slovak municipalities. The title also includes information about the German troops' progress in Poland, but the link between the German attack on Poland and the Slovak Army's progress is not mentioned. The release of Slovenská politika from 5 September brings another relatively extensive report on the progress of the Slovak army in Poland. The author points out that the Slovak army has entered the war exclusively for the protection of Slovaks living in the territory of Poland. Atmosphere on the front compares with the atmosphere of autumn of 1938, when Slovakia achieved autonomy within Czechoslovakia.

3 Conclusion

A lie told once remains a lie but a lie told a thousand times becomes the truth (Joseph Goebbels) (Washington, 2012, p. 134)

As we have seen from the articles analysed, contemporary Slovak propaganda responded to the changing political situation in the European area as well as in domestic politics. The scary situations were black and white in accordance with the current policy of the ruling power. In describing the Czechoslovak relations, it appeared that even in the beginning of 1939, the Slovak press was hostile to the Czech population, although it was critical, requiring, for example, the liberalization of jobs occupied by Czech employees. As time went by, March 1939, journalists began to use thicker words and hard criticism of the Czechoslovak government, Czech politics, and ordinary Czech citizens. With the texts, it was claimed that Slovakia is suffering in a common state, and that Slovaks are the target of attacks by the Czechs.

Concerning the war against Poland, the periodic press emphasized the occupation of the northern Slovak villages by Poland. In doing so, she was responsible only to polish politicians without mentioning the role played by the European powers, including Germany, in the severing of Northern Slovakia. The Slovak press, several months after the German attack on Poland, brought information about the unbearable situation of Slovaks on Polish territory.

Regardless of the topic being analysed, the presented phenomena were always displayed in a simple language, the articles were full of colloquial expressions. Political relations on the domestic and international scene have been explained simply. The propaganda of the individual actors of the articles was black and white: Poles are evil, aggressive, Czechs are evil, pretentious, vengeful, and Slovaks are good, proud, peaceful, etc. Many analysed articles regardless if regardless of whether they were news or opinion genres use judgements and emotionally marked expressions. It could be said, that many texts brought human stories. In general, analysed periodicals preferred stories with a clearly defined hero from the neutral facts.

The information presented in Slovák weekly and Slovenská politika daily were except a few statements, identical and complementary.

Over the entire surveyed period of more than nine months, the phenomena under investigation were basically displayed in the same spirit. Of course, for example, the negative attitude of the

periodicals towards the Czech side was intensified, but overall the opinion on the relations between the Slovaks and the Czechs did not change. The same applies to the relations between the Slovaks and Poland in this period. The readers thus received information confirming their already created opinion, as a result of which readers tended to regard these reports as true. The articles generally used contemporary prejudices and strengthened the Slovaks' good opinion of themselves. Of course, it is more difficult to question information presented in such way. Some sources have not been defined correctly.

Finally, it should be noted that, of course, this study cannot provide a detailed analysis of all aspects of Slovak war propaganda, nor answer all relevant questions regarding the way and forms of propaganda and its impact on the audience. The study is part of more extensive research on Slovak war propaganda and has the character of pre-research.

References

1. CHLUPÁČ, M. *Propaganda jako společenský jev*. Praha : Státní pedagogické nakladatelství, 1978. 285 p. no ISBN
2. FOULKES, A. P. *Literature and propaganda*. New York : Methuen, 1983. 124 p. ISBN: 0-416-71710-I
3. HITLER, A. Mein Kampf. Bratislava : ARA, 2000. 439 p. ISBN 80-9637-1-0-3
4. HRADSKÁ, K. et. al. Slovenská republika 1939-1945. 4. Volume. Bratislava : Veda, SAV, 2015. 480 p. ISBN: 978-80-224-1351-0
5. JIRÁK, J., KŐPPLOVÁ B. *Masová média*. Praha : Portál, 2009. 416 p. ISBN: 978-80-7367-466-3
6. KLUBERT, T. Slovenská armáda v druhej svetovej vojne slovom aj obrazom. Bratislava : Perfekt, a.s., 2016. 436 p. ISBN: 978-80-8046-773-9
7. LASSWELL, H. D. *Propaganda technique in the World War*. 2. Edition. New York, 1938. no ISBN. Accessible on internet:
8. <https://ia601200.us.archive.org/3/items/PropagandaTechniqueInTheWorldWarHaroldLasswell/Propaganda%20Technique%20In%20the%20World%20War%20-%20Harold%20Lasswell.pdf >
9. LIPTÁK, Ľ. *2217 dní. Slovensko v čase druhej svetovej vojny*. Bratislava : Kalligram, 2011. 382 p. ISBN: 978-80-8010-557-1
10. RYCHLÍK, J. *Češi a Slováci ve 20. století. Spolupráce a konflikty 1914-1992*. Praha : Vyšehrad spol. s.r.o., 2015. 677 p. ISBN: 978-80-7429-631-4
11. SERAFÍNOVÁ, D., VATRÁL, J. *Náčrt dejín slovenskej žurnalistiky*. Ružomberok : Katolícka univerzita v Ružomberku, 2005. 214 p. ISBN: 80-8084-019-9
12. TAYLOR, R. *Filmová propaganda*. Praha : Akademia, 2016. 429 p. ISBN: 978-80-200-2534-0
13. VERNER, P. *Propaganda a manipulace*. Praha : Univerzita Jana Amose Komenského, 2011. 192 p. ISBN: 978-80-7452-015-0
14. VYBÍRAL, Z. *Psychologie komunikace*. 2. edition. Praha : Portál, 2009. 320 p. 978-80-7367-387-1
15. WASHINGTON, E. *The Progressive Revolution: History of Liberal Fascism through the Ages, Vol. IV: 2012–13 Writings*. Mendocino : USA Publishing, 530 p. ISBN: 978-0761-86-659-6

Contact

Mgr. Miroslava Dobrotková. PhD.
Katedra žurnalistiky FF UKF v Nitre
B. Slančíkovej 1, 949 01 Nitra
e-mail: mdobrotkova@ukf.sk, tel. no.: +421-37-64-08-410

PUBLICISTIKA IDEOVÉHO HNUTÍ ČERVENOBÍLÍ V LETECH 1922–1923

JOURNALISM OF "THE RED-AND-WHITES" IDEOLOGICAL MOVEMENT IN 1922–1923

Zdeněk Beroun

Abstrakt

Text pojednává o publicistických aktivitách prvorepublikových stoupenců vyhroceného českého nacionalismu – Červenobílých. Prostřednictvím nejrůznějších tiskovin zveřejňovali své programové vize, pranýřovali domnělé politické nešvary a ideové protivníky. Pro radikální postoje však nezískali výraznější podporu v tehdejší demokratické společnosti. Třebaže byl jejich význam pouze okrajový, náleží k nedílné součásti českých moderních dějin.

Klíčová slova: *publicistika, Červenobílí, nacionalismus, fašismus, Výzva Červenobílých*

Abstract

The study describes the journalist activities of "The Red-and-Whites", an interwar Czech nationalist group. The texts published by "The Red-and-Whites" informed about their programme, they criticized the contemporary political situation and their ideological enemies. Although their significance was marginal, they represent a part of modern Czech history.

Key words: *Journalism, The Red-and-Whites, Nationalism, Fascism, Challenge of The Red-and-Whites*

1 ČERVENOBÍLÍ

S koncem první světové války zažívala evropská společnost smíšené pocity úlevy, optimismu i nejistoty. Státy na obou stranách hrůzného konfliktu byly v jeho důsledcích vystaveny řadě politických, hospodářských a sociálních proměn, namnoze ostře kontrastujících s předchozím historickým vývojem. Vzniklá Československá republika pocítila takový kontrast plnou měrou na poli národnostním, neboť vyhlášení samostatnosti přineslo obrat v dosavadním státoprávním postavení národních celků. Především otázka česko-německá, problémové dědictví ze „starých časů", získávala nový rozměr a intenzitu. Nadšení zapálených českých vlastenců, pokládajících nastalé období za dovršení plnohodnotné národní emancipace, však zanedlouho vystřídalo zklamání. Byli rozčarováni z masarykovské koncepce občanské společnosti „pro každého", z uplatňování národnostního smíru, tj. rovnoprávného přístupu k menšinám i z rostoucího politického vlivu socialistické levice.

Jednou z výrazně národovecky orientovaných skupin, které od počátku 20. let projevovaly nespokojenost s vnitřními poměry v novém státě, byli Červenobílí, odvozující své pojmenování od tradičních barev české bikolóry.[1] Těžiště předkládaného příspěvku spočívá

[1] Červenobílí (také klub, sdružení či hnutí Červenobílých) jsou v odborné historické literatuře připomínáni v souvislosti se vznikem a utvářením českého fašismu. Z novější doby lze uvést zejména monografie: NAKONEČNÝ, Milan. *Český fašismus*. Praha 2006; PEJČOCH, Ivo. *Fašismus v českých zemích: fašistické a nacionálněsocialistické strany a hnutí v Čechách a na Moravě 1922-1945*. Praha 2011; VYKOUPIL, Libor. *Český fašismus na Moravě*. Brno 2012. Snad největší pozornost dosud Červenobílým věnoval BALOUN, Pavel. Vznik českého fašismu (1921-1926). *Historie – Otázky – Problémy*. 2010, 2(1), s. 63-83.

v politické publicistice tohoto *„ideového hnutí“*. Právě tištěné proklamace Červenobílých byly významným prostředkem styku s veřejností a dodnes alespoň zčásti dochovaným, subjektivně interpretujícím svědectvím. V dokumentech se odrážejí myšlenkové pochody, názorové linie i sociální příslušnost přispěvatelů. Výpovědní hodnotu těchto pramenů ovšem nelze přijímat bez kritických výhrad, neboť propagovaly jednostranné zájmy a přinášely účelová sdělení. Přesto či právě proto je studium a badatelské vyhodnocení publicistické produkce nezbytné pro pochopení stanovisek, která Červenobílí zaujímali.

1.1 Publicistika

Publicistickou tvorbu Červenobílých lze z hlediska četnosti, sledu a účelu vydávání rozdělit do dvou základních skupin. Tou první je neperiodická publicistika, kladoucí důraz především na propagaci zásadních ideových a programových bodů hnutí. Patří sem tištěné letáky, stručná strojopisná provolání, brožury, organizační směrnice a řády. Do skupiny druhé zahrnuji periodickou publicistiku, tj. stálý tisk, který je přínosný zejména tím, že umožňuje analyzovat postoje Červenobílých v delší časové kontinuitě, během níž se vyjadřovali k aktuálním politickým a národnostně laděným tématům z oblasti státního práva, hospodářství nebo kultury.[2] Prostřednictvím neperiodické i periodické publicistiky se Červenobílí snažili oslovit soudobou veřejnost. Sami sebe označovali za nadstranické hnutí, usilující nejen o sympatie úzkých zájmových skupin, ale prakticky všech společenských vrstev českého, resp. československého národa.

Patrně první veřejné provolání Červenobílých, vydané ještě před oficiálním vznikem sdružení, je spojeno s datem 20. listopadu 1922.[3] Vedle jiných domácích událostí (špionážní aféry důstojníků německé národnosti či provokací německých obyvatel při říjnových „slavnostech českého lidu“ v Chebu) reflektovalo situaci na akademické půdě pražské německé univerzity, kde v půli listopadu propukly nepokoje nacionálního studentstva.[4] Strojem rozmnožený leták nesoucí název *„Všem dobrým českým vlastencům!“* vyzýval k obraně národních zájmů a ne náhodou se objevil právě v univerzitních prostorách Karolina.[5] Mezi sympatizanty Červenobílých proto nalezneme nastupující inteligenci – posluchače a čerstvé absolventy právnické fakulty, medicíny i pražské techniky.

K založení klubu Červenobílých, přesněji k ustavení jeho organizačního výboru došlo 30. listopadu 1922 na seznamovací schůzi v hostinci v Mariánské ulici v Praze.[6] Předním iniciátorem červenobílé myšlenky, Dr. Ing. Zdeňkem Zástěrou, byl vypracován rámcový program zveřejněný počátkem následujícího roku. Útlá brožura s nadpisem *„Lide československý!“* přinášela soubor dvanácti požadavků majících vést k *„ozdravení“* veřejného života v zemi. Červenobílí jimi nárokovali např. garanci státního jazyka, změnu volebního systému, *„odpolitizování“* školství, revizi blíže nespecifikovaných *„odnárodněných“* zákonů nebo odstranění *„národně nespolehlivých a odborně nekvalifikovaných“* příslušníků vojska

---

[2] K tématice českého radikálně nacionálního tisku blíže FARGAŠOVÁ, Eva. Publicistika a literatura českých fašistů 20. let – významný pramen studia politického vývoje Československa. *Časopis Matice moravské*. 1989, 108(1), s. 89-104.

[3] Autor provolání, JUDr. Ing. Otakar Čapek, se již 7. listopadu t. r. snažil inzerovat v předních českých listech výzvu *„Všichni poctiví Češi, spojte se!“*, avšak bez úspěchu. *Říšská stráž*. 27. 10. 1927. 1(41), s. 2.

[4] Napětí na německé univerzitě eskalovalo po volbě nového rektora, který byl židovského původu, což vedlo k násilným střetům mezi antisemitskými a židovskými studenty. Tisk souběžně informoval také o projevech protičeských nálad. Archiv Univerzity Karlovy, fond Všestudentský archiv (1848–1953), kart. C2.

[5] *„Národní český stát je v nebezpečí. Nezměrná troufalost našich německých spoluobčanů, veliká povolnost jistých kruhů vůči jich smělým požadavkům, vzbuzuje všeobecnou obavu všech dobrých Čechů, že stát náš nebude státem národním, nýbrž národnostním, který při prvním možném vnějším konfliktu utrpí veliké škody. Všichni, kteří nesouhlasíte s tímto postupem a nadbíháním našim vnitřním nepřátelům, hlaste se do řad těch, kteří budou se snažiti učiniti ze všech sil nápravu. Vážně míněná nabídka s adresou budiž odevzdána zde. Červenobílí.“ Říšská stráž*. 27. 10. 1927. 1(41), s. 2.

[6] Tamtéž.

a státní správy.[7] V těchto postulátech, jakkoliv rezolutních, nebyly zpochybněny základní principy československé parlamentní demokracie ani republikánská forma státu. Na rozdíl od tradičních politických stran se však Červenobílí coby deklarované *„volné ideové sdružení“* vyřazovali z politické soutěže, tj. z účasti na zákonných volbách, tedy i z případné participace na politické moci. Demonstrovali tím svůj nesouhlas s *„neúměrnou“* institucionalizací politického stranictví, které – viděno červenobílou optikou – omezovalo *„nezadatelná práva a tužby národa“*.

K brožuře *„Lide československý!“,* jež se posléze stala programovou osnovou hnutí Červenobílých, se váže zaznamenáníhodný paradox: její tisk byl zadán německému nakladateli.[8] Červenobílí totiž pro svoji vyhrocenou rétoriku nenalezli pochopení u žádné z českých tiskáren; naproti tomu německý tiskařský podnik A. Haase preferoval obchodní zájem bez zjevných nacionálních pohnutek. Českým národovcům nezbývalo než učinit kompromis na úkor vlastního ideového přesvědčení.

Tisková akce v prvních měsících roku 1923 skutečně přinesla určitou odezvu.[9] Červenobílým se dařilo získávat nové příznivce nejen mezi vysokoškolsky vzdělanými intelektuály, ale i v okruhu národně smýšlejících dělníků a radikálnějších středních městských vrstev.[10] Nelze opomenout událost, která mohla mít na tento fakt jistý vliv – lednový atentát na národně demokratického ministra financí JUDr. Aloise Rašína. Červenobílí v bezprostřední reakci zorganizovali na pražském Václavském náměstí protestní shromáždění, kde tento čin rozhodně odsoudili a rozšiřovali letáky s opětovným prohlášením k veřejnosti.[11] Rostoucí

---

[7] *„Chceme: I. aby jedině jazyk československý byl jazykem státním a aby veškeré projevy státní svrchovanosti nesly se duchem národním; II. aby zrevidovány a opraveny byly zákony, které nezabezpečují národu našemu plně jeho suverenity ve státě a které hospodářsky a sociálně brzdí jeho rozvoj; III. aby na prvních místech stáli vždy jen první z prvých, vyzbrojení odbornou a mravní hodnotou; IV. aby z vojska a ze státní správy odstraněni byli živlové rozvratní, národně nespolehliví a odborně nekvalifikovaní; V. aby takto zrestringovaný počet státních úředníků a zaměstnanců byl jakosti a výkonnosti přiměřeně placen, čímž bude zabráněno znemravňujícímu vlivu korrupce; VI. aby odstraněny byly vázané kandidátní listiny, poskvrna to demokratismu, kterouž byla lidu odňata možnost projevu svobodné vůle; VII. aby hranice státní byly bezpodmínečně zachovány a energicky proti každému hájeny; VIII. aby pozemková reforma, jako jeden z nejdůležitějších problémů celostátních, nebyla řešena pod vlivem politických stran, nýbrž čistě jen z hlediska národního a národohospodářského; IX. aby školy byly odpolitisovány a zakázána účast dětí a mládeže pod 16 let na politických projevech, neboť jest nepřípustno otravovati duši dítěte vštěpováním stranického záští; X. aby naši hraničáři za svůj statečný boj nebyli trestáni státní nevšímavostí, ale aby byli v každém ohledu co nejvíce podporováni a chráněni; XI. aby se proti zrádcům a všem škůdcům republiky zakročilo s veškerou přísností zákona bez ohledu na jejich příslušnost k té které politické straně; XII. aby vrahům a velezrádcům nebyla udílena milost za žádných podmínek.“*

[8] *Nástup Červenobílých*. 11. 11. 1939. 1(4), s. 3.

[9] Náklad brožury *„Lide československý!“* dosáhl 100 tisíc kusů a její distribuce probíhala rychlým tempem za pomoci dobrovolných kolportérů. Tamtéž.

[10] *„Pokud jde o Červenobílé, spojují tito mezi sebou mladší příslušníky všech politických stran i vrstev národa, hlavně pak realismem neotrávené studentstvo a inteligentní dělnictvo, nezkažené hlízou bolševismu.“ 28. říjen*. 15. 3. 1923. 5(61), s. 3.

[11] *„Ne vlivem prázdných hesel, aniž z milosti politických stran, nýbrž z jednolité vůle národa a jeho nikdy neklesající víry v možnost lepší budoucnosti československého lidu, zrodil se náš svobodný stát. Naše třistaletá tužba, svobodný československý, národní stát, za nějž umírali tisícové nejlepších synů národa na bojištích a popravištích, opuštěni, v dáli od své vlasti a svých rodin, tento nejvyšší ideál, kterého může národ dosáhnouti, jest v nebezpečí. Nepřátelé vnitřní i vnější jásají! Co činíme my? Bijeme se navzájem, zavrhujíce a prohlašujíce za nebezpečnou a přežitou věc to, co má býti každému národu svato; zavrhujeme nacionalismus. To slovo, které vzbudilo před 100 léty náš spící národ, a které umožnilo nám provedení našeho dávného ideálu, dosažení samostatnosti, má zmizeti ze srdcí a myslí všech. Proč? Protože přejí si toho naši úhlavní nepřátelé vnější a vnitřní. My máme kapitulovati před národnostmi a lidmi, kteří do poslední chvíle bojovali proti naší samostatnosti, a když této bylo dosaženo, vzali si za společný cíl ji zrušiti a rozvrátiti. Míra troufalosti těchto lidí a všech jejich pomahačů jest dovršena. Národ si uvědomuje, kam spěje a co jej čeká. Národ se probouzí, aby čelil všem nepřátelům národního československého státu, stejnou zbraní, jakou se proti němu bojuje. Lid československý bude se brániti a postaví proti idei – ideu, proti pěsti – pěst! Voláme proto všechny dobré*

základna hnutí je povzbudila v záměru vydávat vlastní periodický list, stálou tiskovou platformu, nejen pro seznamování s jejich cíli a zásadami, ale také k posílení organizační činnosti a pravidelných korespondenčních kontaktů s členstvem; podle odhadů i pořadových čísel dochovaných legitimací se v této době k Červenobílým hlásilo na 1300 osob, z Prahy, Brna, Plzně i dalších měst republiky.[12]

Úmysl založit vlastní nezávislý list Červenobílí anoncovali v půli března v deníku *28. říjen*, který již poskytoval prostor další české nacionální organizaci – Národnímu hnutí.[13] Bylo dohodnuto, že periodikum s názvem *Výzva Červenobílých* bude vycházet jako týdeník s podtitulem: *List Červenobílých. Sdružení na obranu práv národa*.[14] Ideově i personálně plynule navazoval na týdeník *Výzva*, vycházející od listopadu 1921.[15] Již zde zaznívala kritika domácího politického uspořádání, protihradní a antiněmecké tendence.

První číslo *Výzvy Červenobílých* neslo datum 27. března 1923[16] a na titulní dvoustraně přitahovalo pozornost manifestem *„Čechové! Slováci!“*. Tak jako v předchozích textech ani zde nechyběly plamenné vlastenecké formulace[17] a v opakovaném slovním spojení *„nevládne se nám národně“* byly zpochybňovány stranické a třídní zájmy *„stojící nad zájmy lidu“*. Počínaje apelem v názvu se manifestem šířily myšlenky propagující ideu slovanství a vzájemnosti Čechů a Slováků. S naléhavou vážností Červenobílí znovu připomněli svůj program, uveřejněný již v provolání *„Lide československý!“*, který doplnili o požadavek neporušitelnosti zemských celků a jejich historických hranic.[18] Manifest za ústřední výkonný výbor Červenobílých podepsali: JUDr. Jiří Branžovský, JUDr. Ing. Otakar Čapek, Zdeněk Král, František Kurfürst, JUDr. Julius Skála a Dr. Ing. Zdeněk Zástěra. Pod provolání připojily svá jména rovněž tři respektované postavy tehdejšího politického, kulturního a vědeckého života: slovenský právník a národně demokratický senátor Matúš Dula, spisovatel Josef Holeček a bývalý rektor Univerzity Karlovy, prof. MUDr. František Mareš. Byl to nepochybně strategický krok Červenobílých, kterým působili na veřejnost a současně se prostřednictvím těchto osobností prezentovali jako zastánci státoprávní politické koncepce jednotného národa Čechů a Slováků. Čechoslovakismus byl státotvornou ideou, kterou čeští nacionalisté plně podporovali; uzákonění jednoty dvou blízkých slovanských národů vnímali jako nástroj dominance nad ostatními národnostmi žijícími v Československu.

československé lidi, aby si podali vzájemně ruce a postupovali spolu s námi, zakládajíce všude obranné organisace za účelem zachování československého národního státu. Červenobílí.“

[12] Obzvláště činorodá byla místní organizace Červenobílých v Mladé Boleslavi v čele s prof. Ing. Vladimírem Krausem.

[13] Počátky Národního hnutí neboli *„volného sdružení vlastenecky cítících občanů“* se tradují od března 1921. Ideově bylo blízké Červenobílým, avšak umírněnější ve stylizaci svých požadavků. Majitel, vydavatel a šéfredaktor *28. října* Josef Hudec figuroval v jeho ústředním výkonném výboru.

[14] *„O finanční zabezpečení postaral se Dr. Z. Zástěra dary svých zámožnějších přátel a doplnil je z vlastních prostředků, takže celková částka, která byla k tomu účelu nashromážděna, dosáhla výše 140 tisíc K.“ Nástup Červenobílých*. 18. 11. 1939. 1(5), s. 3.

[15] Vydavatelem a zodpovědným redaktorem *Výzvy* byl František Kurfürst, současně zakládající člen a přední činitel Červenobílých.

[16] Zodpovědný redaktorem *Výzvy Červenobílých* byl ustanoven František Kurfürst, vydavatelem JUDr. Julius Skála.

[17] *„Se vzrůstajícím odstupem od památného a slavného dne 28. října 1918 zřejmě mění se radost a nadšení prvých dnů popřevratových v trpkost zklamání a v muka obav. Lid náš dobře tuší, že jest mnoho nezdravého v jeho státě, a nedivno, že klade si otázku, zda to, co prožíváme, ten československý stát, v němž žijeme dnes, jest skutečně také tím naším, mořem slzí a krve vykoupeným ideálem. Všechna nejistota i obava o budoucnost naší republiky prýští z vědomí, že rozvrácena jest druhdy nerozborná a jednotná fronta národní, která zdrtivší moc Habsburgů, sama jediná vyprostila národ z otrockých pout…“ Výzva Červenobílých*. 27. 3. 1923. 1(1), s. 1.

[18] *„…aby v jednotném státě Československém zachovány byly historické útvary zemí v jejich historických hranicích s kompetencí bývalých zemských sněmů a zemských výborů s rozšířením též na Slovensko;“* Tamtéž, s. 2.

Součástí úvodního čísla se stal rovněž *„Prozatímní organisační řád Červenobílých“*. Směrnice tohoto typu bývaly obvykle vydávány samostatně, sice povětšinou interní, ale přesto působivější formou. K tomuto nestandartnímu řešení zřejmě Červenobílí přistoupili z úsporných důvodů, redakce týdeníku vyžadovala nemalé finanční prostředky a náklady na další tiskoviny pochopitelně zatěžovaly rozpočet. Reagovali tak ale zároveň na ironické hlasy politických odpůrců, kteří je dosud považovali za anonymní hnutí bez pevných stanov; čtenáři týdeníku měli nyní po ruce přehledný „manuál“, obsahující základní informace o organizační struktuře, podmínkách členství nebo disciplinárních předpisech.[19]

Vedle příspěvků zaměřených na aktuální domácí i zahraniční politické dění (kupř. na česko-polské územní spory o Javorinu) byl ve *Výzvě Červenobílých* vyhrazen prostor celoevropským otázkám slovanství (rubrika *Slovanský obzor*), tématům vojenským (rubrika *Vojenská hlídka*), národohospodářským, dělnickým, kulturním, náboženským a organizačním (rubrika *Organisační hlídka*, později *Organisační věstník*). Mezi stálými přispěvateli se objevovali především členové ústředního výkonného výboru Červenobílých; pravidelně vycházely antisemitsky zabarvené články JUDr. Julia Skály (cyklus *O propagandě za války a po válce*),[20] kritické komentáře k probíhající pozemkové reformě od Dr. Ing. Zdeňka Zástěry (cyklus *Problém pozemkové reformy a jejího řešení*), hudební a divadelní recenze z pera JUDr. Jiřího Branžovského (rubrika *Kulturní hlídka*) i příležitostné úvahy prof. MUDr. Františka Mareše. Jazyková a stylistická úroveň *Výzvy Červenobílých* se – podobně jako myšlenková originalita, odborný vklad či schopnost nosné argumentace – lišily od jednotlivých autorů. Oproti mdlým až pitoreskním pokusům o burcující vlasteneckou poezii se ve sféře uměnovědné fundovaně projevoval PhDr. Václav J. M. Augusta (rubrika *Umění a literatura*).[21] Ve zmiňovaném *Slovanském obzoru* Červenobílí zdůrazňovali potřebu všeslovanské spolupráce, neboť byli přesvědčeni o dějinné integritě pojmů „slovanství“ a „národ“. Carský panrusismus druhé poloviny 19. století však nebyl o nic méně rozpínavý než německý pangermanismus a „bratrovražedné“ boje (nejen) na frontách Velké a občanské války pohřbívaly naději na budoucí realizaci konceptu slovanské vzájemnosti. Zároveň je třeba podotknout, že panslavistické ideje českých národovců vzešly – aniž si to Červenobílí uvědomovali nebo byli ochotni připustit – ze západního (německého) kulturního prostředí, tudíž se značně rozcházely s životní a duchovní realitou Východu.

Nejvýraznější politickou iniciativou, kterou *Výzva Červenobílých* mediálně zaštiťovala, byla kampaň vedená proti stávajícímu volebnímu systému. Právě na stránkách tohoto periodika byla 25. května 1923 zahájena agitace nazvaná *„Červenobílí pro vyproštění národa z pout vázaných kandidátních listin!“*[22] Klub Červenobílých odsuzoval toto ustanovení volebního zákona od samého počátku své existence. Spatřoval v něm – do jisté míry oprávněně – nedemokratické zvýhodnění předáků politických stran, kteří nemohli být z pořadí na kandidátních listinách přesouváni formou preferenčních hlasů, což jim zaručovalo volitelnost. Červenobílí chtěli dosáhnout zrušení této vázanosti *„celonárodní petiční akcí“*, jejíž případný

[19] Místní, okresní a župní družiny Červenobílých podléhaly kolektivnímu orgánu, tzv. Radě Desíti, jejíž členové byli zároveň členy předsednictva ústředního výkonného výboru. Vzhledem k tomu, že klub uveřejnil organizační – byť prozatímní – řád již v prvním čísle své tiskové tribuny, je tvrzení Evy Fargašové (c. d., s. 94), že *„poloilegální Červenobílí“* organizační strukturu tajili, přinejmenším zavádějící.

[20] Židé byli zobrazováni jako „spiritus agens“ nedávného světového konfliktu. Konstrukt „židovského spiknutí“ se stal charakteristickým a často opakovaným leitmotivem Skálových rukopisů.

[21] Byl to také on, kdo vystřídal Františka Kurfürsta na postu zodpovědného redaktora *Výzvy Červenobílých* (od čísla 18 z 28. 7. 1923).

[22] *„Lidé zlého svědomí, obávajíce se soudu národa, vnutili mu vázané kandidátní listiny, aby si tak pojistili vládu nad ním a dovedli jej bezpečněji ke konečné zkáze. Vázané kandidátní listiny jsou nejtěžším balvanem na cestě šťastného národního rozvoje a dokud nebudou odstraněny, nebude vládcem v republice český lid, nýbrž kartel zkorrumpovaných vůdců politických stran. Vázané kandidátní listiny musí být odstraněny!* (…) *Občané republiky, ukažte, chcete-li být skutečně plnoprávnými občany nebo jen hlasovacím stádem! Vyzýváme všechny lidi dobré vůle bez rozdílu stranické příslušnosti k součinnosti.“ Výzva Červenobílých*. 25. 5. 1923. 1(9), s. 1.

úspěch se chystali využít při prosazování plebiscitu. V následujících číslech proto soustavně vybízeli k podpisu petičních archů, které rozesílali venkovským důvěrníkům a předplatitelům *Výzvy Červenobílých*, ale i k účasti na veřejných schůzích a táborech lidu. Horlivě propagovaná kampaň postupně slábla, až vyzněla do ztracena s nejasným, patrně mizivým výsledkem. Již v zářijových komunálních volbách se mohli voliči přesvědčit, že pravidlo vázaných kandidátek nedoznalo žádných změn.

1.2 Reflexe

Česká periodika zareagovala na vznik *Výzvy Červenobílých* rozličnými způsoby, podle příslušnosti k politickým proudům a stranám, kterýchžto názory předkládala čtenářům. Nelze proto a priori spoléhat na jejich objektivní přístup. Národně demokratický deník *Národní politika* zveřejnil bezprostředně po uvedení prvního čísla *Výzvy Červenobílých* všech třináct programových bodů manifestu *„Čechové! Slováci!“*. Třebaže s Červenobílými sympatizoval, otevřené podpory se jim prozatím nedostalo, neboť doslovný přetisk postrádal hodnotící komentář.[23] Neskrývaně souhlasnou reakci přinesla *Družina československých legionářů,* tiskový orgán nacionálně vyhraněných účastníků prvního odboje, sloučených do stejnojmenné organizace: *„My jsme v tomto listě uplatňovali vždy myšlenky, které v provolání Červenobílých jsou činěny zásadou, východištěm i cílem této nové organizace. Že se k těmto myšlenkám hlásí Červenobílí a že na jich základě se zavazují k upřímné spolupráci pro blaho národa a zabezpečení státu, vítáme a pozdravujeme je srdečně jako novou a – doufáme – platnou složku těch sil, které se řadí k zápasu za povýšení národního ideálu a za obrození našeho života upřímněji, opravdověji a také sebevědoměji pochopeným nacionalismem.“*[24] Ústřední list agrární strany *Venkov* oproti tomu ve stručné, avšak věcné a poměrně výstižné zprávě poukázal na okolnost, že programu Červenobílých schází originální náplň, jakož i zdůvodnění, kterak svých cílů dosáhnou: *„A co chtějí? Nic jiného, než to, oč vlády naše dávno se snaží a k čemu také dospějí. Jakými prostředky a cestami chtějí se ‚Červenobílí‘ ke splnění svého programu dostati, o tom ani slova.“*[25] Zcela odmítavý postoj pak podle očekávání zaujaly k *Výzvě Červenobílých* levicové deníky. Večerní vydání *Českého Slova* se dokonce nevyjadřovalo k vlastnímu provolání, ale toliko ke třem zmiňovaným osobnostem, které jej signovaly: *„Bůh s nimi se starci! Jejich podpisy nic nenapraví a nic nepoškodí a ničím v republice nepohnou. Nanejvýše potvrdí znovu starou pravdu, že ani šediny nejsou ochranou před – pošetilostí.“*[26] Opoziční komunistické *Rudé právo* uplatnilo ostře konfrontační tón a již v nadpisu článku *„Vlci v beránčí kůži“* varovalo čtenáře před *„červenobílými fašisty“*, s odkazem na praktiky fašistického režimu v Itálii.[27] Tento moment si žádá bližší vysvětlení…

Aktivizace Červenobílých je nezřídka dávána do souvislostí s nástupem italského fašismu. Oni sami se za epigony této ideologie zprvu nepovažovali, přestože někteří pohlíželi na fašismus se sympatiemi a jistým obdivem jako na „*stát sjednocující mravní hnutí nacionální“*, jež ochromilo mocenské snahy italských socialistů zasažených vlnou bolševické

---

[23] *Národní politika*. 29. 3. 1923. 41(86), s. 4. Tentýž neutrální postoj vyjádřil *Prager Abendzeitung* (večerní vydání deníku *Prager Tagblatt*). Mluvčí německé menšiny patrně necítili potřebu tiskové proklamace českých nacionalistů veřejně komentovat.

[24] *Družina československých legionářů*. 9. 4. 1923. 4(7), s. 1. Ideová spřízněnost v tomto případě posvětila i obchodní partnerství. Právě tiskárna Družiny čsl. legionářů obdržela zakázku na ražbu *Výzvy Červenobílých* (tiskla ji od 27. 3. do 22. 6. 1923, číslo 1-13).

[25] *Venkov*. 29. 3. 1923. 18(73), s. 5.

[26] *Večerní České Slovo*. 30. 3. 1923. 5(71), s. 2.

[27] S podtitulem *„Červenobílí beránci fašističtí. – Vlast na rtech a zločin na mysli. – Právě tak začínali fašisté italští. – Zvlčilosti fašistů v Itálii. – Vraždění dělníků na rozkaz velkostatkářů a fabrikantů.“ Rudé právo*. 29. 3. 1923. 4(73), s. 3.

revoluce.[28] Nebylo nutné vycházet z cizích vzorů; nedůvěra k liberálnímu pluralismu, etnicky vystupňovaný nacionalismus ani stálé volání po „očistě“ nemusely být importovány z Mussoliniho Itálie. Byly v té či oné podobě přítomné rovněž v české politické kultuře. Vyvstaly ale z odlišných geopolitických poměrů, od jiných společenských a sociálních vrstev, a už vůbec se neslučovaly s militantními záměry fašistické teritoriální expanze.[29] Pochod na Řím v říjnu 1922 přirozeně vzbudil značnou pozornost v celé Evropě, Československo nevyjímaje, a to napříč společností i politickým spektrem. Byl impulsem (nejen) pro krajní levici, která od této chvíle dávala veškerým nacionálním tendencím pejorativní italský příměr. Vše, co odporovalo jejímu třídnímu pojetí a co pokládala za konkurenční ohrožení v boji o přízeň „mas“, bylo f a š i s t i c k é. Zavádějící označení mátlo soudobou veřejnost a po roce 1948 zatížilo českou historiografii, když na dlouhá desetiletí ulpělo v jejím výkladovém slovníku.[30] Úspěchy italských fašistů společně s verbálními útoky levice nicméně přiměly české nacionalisty, aby nahlas definovali své představy o svrchovanosti *„národního státu“*, vymezujícího se vůči národnostním menšinám, německému a maďarskému separatismu. Ani poté, co se Červenobílí začali slučovat s dalšími nacionálními uskupeními a postupně přejímali některé konstitutivní znaky fašistické ideologie (kupř. jednoznačně dominující vůdcovský protekční princip), nepřestávali hájit pozice českého integrálního nacionalismu.

K nástupu fašistického hnutí se v týdeníku Červenobílých – ve sloupku nazvaném „*Jsme fašisty, jsme reakcionáři?“* – vyslovil člen Rady Desíti JUDr. Jiří Branžovský. Jeho poněkud obrazný výklad nebyl explicitním přihlášením se k italskému „vzoru“, ale k vlastní podstatě zarytého národovectví: *„Nuže, co je to fascismus? Je to živelný proud v národě italském, který jako nesmírný příboj převalil se a spláchl s povrchu* ony *žabaře a zrádce, kteří pod rouškou ‚blaha mas‘ ničili vlast, podlamovali síly svého národa a při tom sami hltavě žrali ze státního žlabu, resp. pomáhali k tomu žlabu těm, kdož jim byli nápomocni a kdož k tomu řádění mlčeli! Pak-li takto chápou naši odpůrci ‚fašismus‘, a pak-li ‚reakcí‘ je jim nekompromisní nacionalismus a návrat k zásadě ‚na prvá místa jen prví z prvých‘ a snaha o odstranění hyen, které by z vlasti nejraději udělaly mrchu, aby ji pak ohryzaly až na kost, – pak jsme hrdi na to, že jsme ‚reakcionáři‘ a ‚fašisté‘!“*[31]

Ve *Výzvě Červenobílých* zaujímalo taktický prostor nejen vymezování se proti *„státu a národu škodlivé“* politice vládních stran, ale i vyjasňování postojů vůči spřízněným vlasteneckým sdružením; v prvé řadě vůči Národnímu hnutí. Z uvozené citace je zřejmé, že vzájemné vztahy i přes ideovou blízkost procházely proměnlivým vývojem: *„Umírněný směr Národního hnutí neměl místa pro radikální tendence mladých vlasteneckých živlů hlavně dělnických a studentských, které sdruživše se v jednotu, daly vznik Červenobílým. Postupem času se však ukázalo k opravdové radosti všech mladých, že i vlastenci, jimž v boji za svobodu národa, vlasti a ideí slovanských již dávno zbělel vlas, jest toliko přesvědčivého a průbojného radikalismu, že možno radostně jíti s nimi ruku v ruce za vzdorně vlajícím praporem běločerveným. Národní hnutí, které sdružuje kol sebe rovněž dobré vlastence, kteří však svým povahovým založením jsou pro mírnější postup, má za dnešního stavu věcí své výsostně důležité poslání v národě. Ono snaží se národ převychovati a pozvolnou cestou vésti k poznání pravdy v chaosu dělání dějin a osvobozeneckých legend.* (…) *Tímto dán jest náš*

[28] V Kurfürstově týdeníku byli dokonce italští fašisté přirovnáváni *„způsobem organisace a methodami bojů“* k rasistickému hnutí Ku-klux-klan. *Výzva*. 24. 6. 1922. 1(26), s. 7.

[29] Čeští nacionálové *„sice chtěli co nejsilnější – a to znamenalo: co největší – český stát, ale zároveň stát ‚národní‘ ve smyslu etnicky a politicky homogenním…“* LOEWENSTEIN, Bedřich. Promeškaná příležitost. *Soudobé dějiny*. 2001, 8(2-3), s. 410-411.

[30] Připomínám některé ideologicky tendenční práce postrádající nestranný náhled: GAJANOVÁ, Alena. *Dvojí tvář. Z historie předmnichovského fašismu*. Praha 1962; PASÁK, Tomáš. *K historii českého fašismu: Český fašismus a jeho zhoubná politika v letech 1922-1945*. Praha 1985; PEŠA, Václav. K otázce počátků fašistického hnutí v českých zemích. *Časopis Matice moravské*. 1953, 72(3-4), s. 210-248.

[31] *Výzva Červenobílých*. 25. 5. 1923. 1(9), s. 2.

poměr k Národnímu hnutí – poměr srdečný a bratrský. Jdeme za stejným cílem dle stejných směrnic, každý vlastní cestou. A v pravdě nezáleží na zvolené cestě, jen když všichni máme vůli stejnou!"[32]

Souvislá publicistická činnost klubu Červenobílých neměla dlouhého trvání. Mezi jeho čelnými představiteli se v průběhu roku 1923 prohlubovaly neshody především v otázce případných spojenectví s obdobně orientovanými skupinami. Tzv. slučovací akci prosazovalo vedení JUDr. Julia Skály (vydavatele *Výzvy Červenobílých*) za nesouhlasu opozičního křídla soustředěného kolem Dr. Ing. Zdeňka Zástěry.[33] Rozepře vyústily v secesi části členstva, část „Skálových" Červenobílých pak na podzim 1923 splynula právě s Národním hnutím. Poslední 33. číslo *Výzvy Červenobílých* z 27. října 1923 se svým úvodníkem nazvaným *„Červenobílým a československé veřejnosti!"* neslo současně ve znamení této fúze i proběhnuvšího rozkolu.[34] Odchozí opoziční frakce nadále vystupovala pod původním názvem a krátce také vydávala vlastní týdeník *Svoboda* (s podtitulem *List Červenobílých za obranu práv národa*), který měl být přímým pokračováním *Výzvy Červenobílých*. Vyšlo však pouhých šest čísel a již v prosinci 1923 *Svoboda* zanikla.

2 ZÁVĚREM

Nebylo v mých silách zachytit veškerou publicistickou produkci Červenobílých, ne všechny materiály se dochovaly do současnosti. Snažil jsem se poukázat na, dle mého soudu, stěžejní „komuniké" postihující jejich ideologii a politický styl, jenž byl reakcí na nenaplněná očekávání a vývoj „doby popřevratové" a současně výrazem přetrvávajících dějinných stereotypů: panslavismu, antisemitismu. V textech Červenobílých jsou snadno rozpoznatelné prvky nacionální demagogie pramenící z přepjatého národního cítění, tvrdošíjné zásadovosti a sebeklamu. Skrze vlastenecky laděnou symboliku a ideová hesla naplňovali vlastní představy o dějinné identitě českého národa. Vyslovené požadavky nenacházely větší prostor ve veřejné diskuzi ani nepromlouvaly do praktické politiky, svévolná interpretace česko-německého soužití nemohla být cestou k řešení složité a nejednoznačné národnostní problematiky. Pranýřování nedostatků, ale současně nezpůsobilost k jejich nápravě vytvářely bludný kruh, uzavírající Červenobílé, ale i další radikální národovce v marnosti jejich snažení. Okrajový význam Červenobílých, umocněný nereálnými vizemi i vnitřní animozitou, předurčovala také skutečnost, že v mladém Československu nebylo pro konsolidaci a rozvíjení státního celku příliš zapotřebí zdůrazňovat vypjatý nacionalismus a antisemitismus. Československá veřejnost se dokázala ztotožnit s novou formou rozdělení moci a přijala demokratické republikánské zřízení.[35] Ambice Červenobílých – jakožto nositelů konfliktů, usazených a formujících se v nacionálních zákoutích české společnosti – tak nedošly svého naplnění. Mnohé bývalé vůdčí osobnosti tohoto hnutí zůstaly přesto ve svém světonázorovém přesvědčení konzistentní. Svůj neústupný patriotismus projevovaly

[32] *Výzva Červenobílých*. 6. 4. 1923. 1(2), s. 2.

[33] Blíže FARGAŠOVÁ, Eva. *Historie českého fašismu v letech 1921–1929*. Praha 1989. Kandidátská disertační práce. Československá akademie věd. Ústav československých a světových dějin, s. 54.

[34] *„Všem, kdo s láskou i obavami sledovali rozvoj našeho hnutí Červenobílých i Národního, bylo čím dále jasnějším, že jen mocný jednotný proud může proraziti rostoucí politickou netečností a znechuceností veřejnosti i překonati odpor směrů, národní a slovanské myšlence nepříznivých. Zároveň byla však již záhy patrna i snaha některých jednotlivcův, aby na místo konsolidace národně-radikálního tábora hnutí se rozplihlo v kompromisech a postranních cestičkách.* (…) *Čelíce takovému rostoucímu nebezpečí, uvědomující si je rozhodli se pracovati zrychleně ke spojení obou hnutí Červenobílých i Národního, tím spíše, že v části Červenobílých, blízké jmenovaným výše zjevům, počal se projevovati k myšlence sjednocení neodůvodněný odpor.* (…) *Podepsaní* [v popředí JUDr. Julius Skála – pozn. ZB]*, přesvědčení, že jednají jak v duchu programu Červenobílých, tak v intencích těch vynikajících osobností, které stály za provoláním v 1. č. ‚Výzvy Červenobílých', prohlašují zásadně bezodkladné sloučení organisací i Výzvy Červenobílých s Národním hnutím." Výzva Červenobílých*. 27. 10. 1923. roč. 1(33), s. 1.

[35] Srov. BALOUN, Pavel. Vznik českého fašismu (1921-1926). *Historie – Otázky – Problémy*. 2010, 2(1), s. 82.

i v dobách nacistické okupace, za což nejednou zaplatily životem či léty strávenými v německých káznicích a koncentračních táborech.

Prameny a literatura

Archivní prameny

1. Archiv Univerzity Karlovy, fond Všestudentský archiv (1848-1953)

Dobový tisk

1. *28. říjen* 1923
2. *Družina československých legionářů* 1923
3. *Národní politika* 1923
4. *Nástup Červenobílých* 1939
5. *Prager Abendzeitung* 1923
6. *Rudé právo* 1923
7. *Říšská stráž* 1927
8. *Večerní České slovo* 1923
9. *Venkov* 1923
10. *Výzva* 1922
11. *Výzva Červenobílých* 1923

Literatura

1. BALOUN, Pavel. Vznik českého fašismu (1921–1926). *Historie – Otázky – Problémy*. 2010, 2(1), s. 63-83. ISSN 1804-1132.
2. FARGAŠOVÁ, Eva. *Historie českého fašismu v letech 1921–1929*. Praha 1989. Kandidátská disertační práce. Československá akademie věd. Ústav československých a světových dějin.
3. FARGAŠOVÁ, Eva. Publicistika a literatura českých fašistů 20. let – významný pramen studia politického vývoje Československa. *Časopis Matice moravské*. 1989, 108(1), s. 89-104. ISSN 0323-052X.
4. LOEWENSTEIN, Bedřich. Promeškaná příležitost. *Soudobé dějiny*. 2001, 8(2-3), s. 409-415. ISSN 1210-7050.

Kontaktní údaje

Mgr. et Mgr. Zdeněk Beroun
Univerzita Karlova, Fakulta humanitních studií
U Kříže 8, 158 00 Praha 5 - Jinonice
Tel: 604 750 108
email: beroun@post.cz

PŘÍSTUPY A TENDENCE V SOUČASNÉ ETICE SEXUALITY

APPROACHES AND TENDENCIES IN THE CURRENS ETHICS OF SEXUALITY

Jan Koumar

Abstrakt

Tento text se zabývá možnými filosofickými přístupy k etice sexuality a jejich vtahu ke skutečně vyznávaným morálním zásadám ve společnosti. Pozornost je věnována tradicionalistickému přístupu, romantickému, marxisticko-feministickému, hédonistickému, antinatalistickému a liberálnímu. Stranou je ponechán přístup asketický a přístup založený na distinkci přirozeného a nepřirozeného jednání, jejich vynechání je vysvětleno. Zmíněné přístupy jsou potom porovnány tendencemi zjištěnými sociologickým výzkumem provedeným kvalitativní metodou v ČR v roce 2016.

Klíčová slova: *etika sexuality, filosofie sexuality, sexualita, sexuální morálka*

Abstract

This text deals with possible philosophical approaches to ethics of sexuality and with their relation to the moral rules actually held within society. The attention is paid mainly to traditionalistic, romantic, Marxist-feminist, hedonist, anti-natalist and liberal approaches. The reason why the ascetic approach with the approach based on distinction of unnatural and natural behavior are omitted is then explained. The abovementioned approaches are confronted with the tendencies found by the sociological research made by qualitative methodology in the Czech Republic in 2016.

Key words: *ethics of sexuality, philosophy of sexuality, sexuality, sexual morality*

1 ÚVOD

Sexualita je téma, které se každému zdá být důvěrně známé. Překvapí nás v ní jistě některá anatomická specifika, mnozí projeví zájem o zvláštnosti antropologické, avšak na etiku se v této oblasti často hledí jako na přežitek viktoriánských mravů nebo se šmahem spojuje s moralizováním. D. Bonevac proto tvrdí, že pro teenagery jsou morálka a sexuální morálka synonymická slova (Bonevac 1999) i P. Singer považuje za nutné zahájit definici etiky prohlášením, že „*morálka či etika nejsou sadou zákazů, které se jmenovitě soustředí na sex*“ (Singer 2011: 2). I když je etika pohlavního chování tímto způsobem jaksi nechtěná, každý z nás se ve vztahu k vlastní sexualitě dostává do situací, kdy je nutné rozhodovat se co je dobré či špatné a kde nám ovšem nijak nepomůže právo – zdaleka totiž neplatí, že co není nezákonné, je i dobré. To jsou situace, v nichž hraje etika významnou roli. Má ovšem smysl ptát se, jaká etika to je a z čeho vychází. Bertrand Russel například již ve třicátých letech minulého století na tradiční omezení pohlavního chování nahlížel částečně jako na důsledek pověr, částečně důsledek společenských a biologických okolností, které již nadále neplatí (Russel 1936). V tomto příspěvku bych se proto rád věnoval otázce možných filosofických přístupů k současné etice sexuality a jejich vztahu k reálně vyznávaným morálním zásadám ve společnosti.

2 ETIKA SEXUALITY

V etice sexuality lze odlit několik rozdílných vrstev. V první řadě je velký rozdíl mezi zvykovou morálkou, kterou Hegel (1992) nazval *Sittlichkeit* a subjektivním etickým životem jedince (*Moralität*). Tam kde se v prvním případě zabýváme tím, co „se dělá", tedy jsme konformní s většinovým zvykem společnosti, tam v druhém většině do jisté míry oponujeme a vycházíme pouze z vlastního přesvědčení. J. Sokol (2014) nazývá první případ společensky sdíleným mravem a druhý individuální morálkou, připojuje k nim pak ještě třetí vrstvu, etiku, tedy hledání toho, co je nejlepší. Mrav se v oblasti sexuality dočkal významné kritiky, jejíž podstatná část leží v tvrzení, že v oblasti natolik intimní a individuální jako je pohlavní chování, nehraje společenská konformita tak významnou úlohu. I když to není zcela pravdivé, s výhradou[1] lze právě na mrav skutečně uplatnit Nietzscheho tvrzení, že je to „užitečný omyl, nebo jasněji (…) nevyhnutelně respektovaná lež" (Nietzsche 2016: 97). O to větší roli však nabývá individuální morálka. I za tou ovšem vždy stojí nějaký koncept, neboť morálka není od mravu zcela odtržena, ale tvoří s ním dvě odlišné vrstvy celé etické oblasti: naprostá morální autonomie vedoucí k úplnému odmítnutí mravu totiž svádí k představě, že co není nezákonné, je správné či k vágním morálním konceptům založeným na „myšlení srdcem", které sice budí pocit dokonalé autority, ve skutečnosti jsou však jen slovní oporou pro sobecké sledování vlastních tužeb na úkor okolí.

Ve snaze zjistit, z čeho morální koncepty vážící se k sexualitě mohou pramenit, jsem v ČR v roce 2016 kvalitativní výzkumnou strategií provedl sociologický výzkum, jehož cílem (mimo jiné) bylo zjistit právě zdroje morálních představ o sexualitě[2]. Zkoumaný vzorek v tomto výzkumu, provedeném pro potřeby diplomové práce napsané na oboru Historická sociologie na FHS UK (Koumar 2016), se skládal z 11 informátorů (8 mužů a 3 žen), z 6 krajů ČR, ve věku 25-51 let, v čtyřech vzdělanostních skupinách (vyučen, SŠ, VOŠ, VŠ). Důraz byl kladen především na variabilitu vzorku, proto do něj byli účelovým výběrem zahrnuti lidé různých sexuálních orientací (homosexuál, bisexuál, heterosexuál), víry (ateista, buddhista, katolík), rodinného zázemí (svobodný, ženatý, rozvedený). I když z důvodu zvolené výzkumné strategie nelze tento výzkum jistě považovat za reprezentativní pro celou populaci, poskytl mi pohled na poměrně širokou základnu zdrojů morálních konceptů. Informátoři ve svých představách o morálce nejčastěji tendovali k situační etice; vycházeli z individuálních zdrojů, založených jednak egoisticky, ale i naopak na poměrně silně zvnitřnělých morálních zásadách; z náboženství, které ovšem častěji fungovalo jako protiklad vlastních morálních zásad než jako jejich vodítko; ve dvou případech informátoři morálku zcela ztotožňovali s právem, což může ukazovat na výše zmíněné odmítnutí morálky (Koumar 2016: 65-71).

Takto popsané morální tendence nicméně zdaleka nejsou dostačující. Půjdeme-li totiž až k východisku etických představ informátorů, narazíme velmi pravděpodobně na obecnější přístupy, i když jejich zdroj si jedinec nemusí vždy uvědomovat. Otázkou také je, zda se u jedinců liší morální zásady spojené se sexem a ty, které se sexu netýkají. V praxi lze totiž etiku sexuality vnímat jako etiku zvláštní, tedy odlišující se od etiky jiných každodenních situací, je ovšem také možné pohlavní chování od ostatních forem společenského jednání neodlišovat.

[1] Pravdivé může takové tvrzení být pro jedince, sexualita je však společenskou činností, setkávají se při ní nejméně dva jedinci, přičemž při naprosté negaci mravu by takové setkání mohlo být zcela nemožné. Mravy totiž samotný společenský styk a vztahy mezi lidmi vůbec umožňují (viz Sokol 2014: 69).

[2] Výzkumným problémem zněl: „*jaké představy si lidé o morálce sexuálního chování vytváří, co je jejich zdrojem a jak, případně zda vůbec, vnímají proměny prostojů společnosti k sexu a morálce*" (Koumar 2016:39). I když byl celý výzkum zaměřen mnohem šířeji, pro účely tohoto příspěvku je zajímavá pouze otázka zdrojů představ informátorů o etice sexu.

3 PŘÍSTUPY K SEXUÁLNÍ MORÁLCE

Přijmeme-li představu, že etika sexuality je etikou zvláštní, první přístup, ze kterého v posouzení vlastního chování můžeme vycházet, bude pravděpodobně přístup *tradicionalistický*, či *konvenční*. Je založen na představě, že pouze sex vedoucí k rozmnožení je morální. Tento, v západním křesťanství po dlouhou dobu dominantní, pohled vychází především z Genesis 1:28[3], dále pak z Augustinova vidění sexu jako smyslné žádosti, panující v důsledku prvotního pádu člověka, kterou ztotožňoval s animálními pohnutkami – *bestiarum motus* (Denzler 199: 26-7). Například z pohledu katolické církve má ale sex kromě rozmnožovacího účelu i účel spojovací (viz Feser 2003) – může proto být prováděn i v neplodných dnech – v širším významu je proto v konvenčním přístupu morální takový sex, který je realizován v rámci manželství. To je posun významný především pro nevěřící: výlučná dostupnost sexu pouze v manželství by nutně vedla lidi ke vstupu a setrvání v manželském svazku, má tak významnou funkci ve společenské soudržnosti (Mappes 1997: 150). Proti tradicionalisticky založené morálce pohlavního chování ovšem mluví především praxe, vůči níž dnes nutně budí pocit pokrytectví[4]: zní totiž spíše anachronicky. Denzler (1999: 217) proto považuje sice hodnotnou sexuální morálku, která však ignoruje či bagatelizuje problémy současného lidstva za „nemorální".

Romantický přístup se oproti tomu zdá být mnohem bližší praxi, je tomu tak ale pouze na první pohled. Filosofickým zastáncem romantického přístupu je především Roger Scruton (1986), a jde v něm v podstatě o to, že sex se jako výhradně lidský fenomén nedílně pojí s intimitou a láskou. Pohlavní touha je podle Scrutona touhou po ztělesnění (*embodiment*) druhého člověka, který daným tělem je. Pohlavně lze proto být přitahován jen jediným člověkem a pohlavní touha směřuje ke sjednocení s ním a dále k intimitě a lásce. I když láska v sexualitě hraje významnou roli a lidé své sériově monogamní chování často chápou jako morálně správné, když prochází alespoň krátkým obdobím zamilovanosti (Bianchi 2011), jako wagneriánského romantika a thatcherovského konzervativce odsoudila Scrutona i s jeho pohledem na sexualitu Marta C. Nussbaum (2012). Scrutonova vize lásky je totiž totalitní. Omlouvá v sexualitě v podstatě jakékoliv chování a zavádí „robustní morálku odsuzování" (Primoratz 1999: 30), která se v důsledku neliší od konvenčního přístupu.

Přístup *marxisticko-feministický* oproti tomu kritizuje fakt, že sex je prostředkem mocenských a třídních manipulací či prostředkem směny mezi muži a ženami. Morální může být tedy pouze sex osvobozený od všech takových mocenských nástrojů. Feministická kritika si také povšimla, že tradiční morální standardy požadují povinnou heterosexualitu a že konvenční morálka je systematicky spojována s patriarchálním manželstvím (Mappes 1997). I když v těchto předpokladech má jak marxistická tak feministická kritika zjevně pravdu, problémem je především požadavek, že se sexu máme věnovat pouze pro něj samý: to stejné totiž jen zřídka děláme v ostatních oblastech vlastního konání. Je jistě pravda, že současná společnost na sexualitu klade značný důraz, i tak však není jasné, proč právě sex by měl být tak dalece zbožštěn, abychom jej prováděli pouze pro slast, kterou přináší a zcela jej zbavit všech ostatních funkcí, které zastává.

Antinatalistický přístup je v naprostém kontrastu k přístupu konvenčnímu. Pouze sexualita, která nevede k rozmnožení je v něm chápaná jako morální, každý příchod na svět je totiž nově narozenému člověku újmou, protože existence je ve znamení tragédie a neštěstí, idealizovaného však vrozeným pollyannismem[5]. I když základy tohoto přístupu lze najít u

[3] „Ploďte a množte se a naplňte zemi."

[4] Již Schopenhauer (1997) považuje přítomnost 80 000 prostitutek jenom v Londýně za doby viktoriánsky restriktivní sexuální morálky za oběť na oltář předstírané monogamie.

[5] Což je tendence k optimismu a selektivní, optimisticky zaměřená paměť (Benatar 2012:90-91).

Schopenhauera, jde o přístup poměrně moderní, jehož soudobým propagátorem je především David Benatar. Ten na podporu svého tvrzení o tom, že každý příchod na svět je vždy újmou uvádí svůj asymetrický argument[6]. Namítat proti antinatalismu není obtížné, jedná se o filosofii jdoucí proti běžné intuici, což je však fakt na který autor výslovně upozorňuje. Jeho hlavním problémem pro etiku sexuality je však tvrzení, že z důvodu obecné špatnosti existence by bylo nejlépe, kdyby celé lidstvo vymřelo (Benatar 2012: Kap. 6).

Antinatalismus však nesmíme zaměňovat s přístupem *hedonistickým*, v obou jde totiž o něco jiného. Tam kde antinatalista požaduje nereproduktivní sex, protože příchod na svě je vždy utrpením, hédonik vychází z předpokladu, že největším dobrem je jeho blaho. Mohlo by se zdát, že hédonistický přístup k morálce sexuality je ten nejintuitivnější – sexualita jako apetit, jež uspokojujeme za fyzické i emoční rozkoše tomuto vidění nahrává – ve skutečnosti však zdaleka není tak častý. Kelly například tvrdí, že čistě hedonistický přístup k sexualitě zastává jen málokdo a že psychologové by jej zřejmě označili za sociopatickou emoční poruchu (Kelly 1996: 241). To pramení především ze skutečnosti, že sexuální setkávání se netýká jedince, ale je to činnost společenská, v níž člověk ohled pouze na vlastní blaho zpravidla nebere.

Již s hédonismem se však dostáváme na pole etiky, která sex nevidí jako druh lidské činnosti morálně odlišný od ostatních činností. Totéž platí pro přístup *liberální*, který vidí sexualitu jako činnost samu o sobě eticky neutrální, zda je dané chování dobré či špatné určují jiné faktory, například někomu způsobená škoda či předchozí souhlas. To především zbavuje imanentního stínu odsouzení některé aktivity (masturbace, nemanželský sex, homosexuální styk, …) a je vítaným přístupem pro sexuology (viz např. Uzel 2004) není však zcela bez problémů. Sexualita totiž není jen pouhou potřebou, ale pojí se s velmi individuálně prožívanou láskou a křehkou intimitou, například znásilnění se tedy přece jen liší od nepohlavního napadení, což ovšem liberální přístup vzhledem ke své povaze v podstatě vylučuje.

4 ZÁVĚR

Na základě výše popsaného sociologického výzkumu lze říci, že konvenční přístup dnes nezastávají ani informátoři, kteří sami sebe definují jako katolíky. Pozorovat u nich spíše lze inklinaci k romantickému přístupu, který sexualitu nepojí jednostranně s rozmnožováním: sází spíše na romantickou lásku. Stejně tak i liberálové mají tendenci spadat do přístupu marxisticko-feministického, snaží se sice sexualitu zbavit všech morálních i mocenských ohledů, tím ji však jaksi zbožšťují a ze všech sociálních činností vydělují. Hédonizmus byl sice u některých informátorů přístupem požadovaným, rádi by, kdyby jej lidé vyznávali, v praxi jej však sami nesledovali, důležitý pro ně byl souhlas partnera/ partnerky a další hodnoty, neváží se přímo ke slasti. Liberální přístup se na základě tohoto výzkumu zdá být preferovaný, existuje však v mnoha stupních liberalizmu a s konvenčním, romantickým a do jisté míry i s marxisticko-feministickým přístupem se mísí, je proto obtížné liberalismus v sexuální morálce přesně definovat. Antinatalistický přístup se u informátorů mého výzkumu v podstatě nevyskytl, revolta vůči tradicionalismu zastávanému katolickou církví vedla spíše k liberalizmu.

Proti provedenému rozboru možných přístupů či trendů v etice sexuality lze oprávněně namítnout, že nebyly jmenovány všechny. Zmíněna zde nebyla etika *asketických* tradic, pro něž je sex cosi nízkého, od čeho je nutné se vystříhat, máme-li vystoupat k bohu či k jiným

[6] Ten (zjednodušeně) říká, že zatímco pro existujícího je přítomnost bolesti špatná a přítomnost radosti dobrá, pro neexistujícího je nepřítomnost bolesti dobrá a nepřítomnost dobra pouze ne-špatná. Vzniklá asymetrie naznačuje, že na straně existujícího je více zla, než by bylo na straně neexistujícího (Benatar 2012).

spirituálním kvalitám. Důvodem jejího nezmínění je však především fakt, že se jedná v pravém smyslu o etiku ne-sexu, i když platí, že i asketicky odůvodněné rozhodnutí o sexuálním chování je jistě etické povahy. Zmíněna také nebyla etika postavená na *rozlišení přirozeného a nepřirozeného chování* a to jednak proto, že přirozenost je zpravidla posuzována z hlediska náboženské tradice a jedná se tedy o přístup tradicionalistický, ale dále i proto, že odsouzení některého pohlavního chování jako nepřirozeného je pouze vyjádřením vlastní nechuti k takové činnosti a není tedy kategorií etickou ale spíše estetickou (viz Koumar 2017).

Použitá literatura

1. BENATAR, D. (2012). *Nebýt či být*. Praha: Dybbuk. ISBN: 978-80-7438-85-3
2. BIANCHI, G. (2011). Subjektivnost sexuality in: ŠULOVÁ, L.; FAIT, T.; WEISS, P. a kol, *Výchova k sexuálně reprodukčnímu zdraví*. Praha: Maxdorf. ISBN 978-80-7345-238-4
3. BONEVAC, Daniel A. (1999) *Today's Moral Issues: Classic and Contemporary Perspectives*. 3rd ed. Mountain View, Calif.: Mayfield Pub. ISBN: 0-7674-0011-9
4. DENZLER, G. (1999). *Zakázaná slast. Dva tisíce let křesťanské sexuální morálky. Brno: CDK. ISBN: 80-85959-48-8*
5. FESER, E. (2003). The Role of Nature in Sexual Ethics. *National Catholic Bioethics Quarterly*, 13 (1), 169-76.
6. HEGEL, G W. F. (1992). *Základy filosofie práva*. Praha: Svoboda. ISBN: 80-200-0296-0
7. KELLY, G. F. (1996). *Sexuality Today: the Human Perspective*. 5th ed. Madison, WI: Brown & Benchmark. ISBN: 0-697-26587-0.
8. KOUMAR, J. (2016). *Etické souvislosti sexuality*. Diplomová práce. Praha: Univerzita Karlova, Fakulta humanitních studií.
9. KOUMAR, J. (2017). Unnatural as a Category in Sexual Ethics. *Človek a spoločnosť*, 20 (3), 60-69.
10. MAPPES, T., A. (1997). Sexual Morality str. 150-6 in: MAPPES, T. A; ZEMBATY, J. S. *Social Ethics: Morality and Social Policy*. 5th ed. New York: McGraw-Hill. ISBN 0-07-040143-8
11. NIETZSCHE, F. (2016). *Kritika morálky. Morálka ako vôla k moci*. Bratislava: Kalligram. ISBN: 978-80-8101-948-7
12. NUSSBAUM, M. C. (2012) *Philosophical Interventions: Book Reviews*. New York: Oxford University Press. ISBN 978-0-19-977785-3
13. PRIMORATZ, I. (1999). *Ethics and Sex*. London, New York: Routlege. ISBN 0-415-09334-1
14. RUSSEL, B. (1936). Our Sexual Ethics in: *American Mercury* 38, 149.
15. SCRUTON, R. (1986). *Sexual Desire, A Philosophical Investigation*. London: Weidenfled a Nicolson. ISBN: 978-029-77847-91
16. SCHOPENHAUER, A. (1997). *Aforismy k životní moudrosti*. Pelhřimov: NTP. ISBN: 80-901916-5-7
17. SINGER, P. (2011). *Practical Ethics*. 3rd ed. New York: Cambridge University Press. ISBN: 978-0-521-88141-8
18. SOKOL, J. (2014). *Etika, život, instituce. Pokus o praktickou filosofii*. Praha: Vyšehrad. ISBN: 978-80-7429-223-1.
19. UZEL, R. (2004). *Pornografie, aneb, Provokující nahota*. Praha: Ikar. ISBN: 80-249-0351-2

Kontakt
Mgr. Jan Koumar
Univerzita Karlova, Fakulta humanitních studií
U Kříže 8, Praha 5 – Jinonice, 158 00
jan.koumar@gmail.com

APPLICATION OF KAIZEN PHILOSOPHY IN THE LABORATORY OF MEASURING TECHNIQUES

Alexandra Javorská, Simona Klvačová, Jan Rybář, Zuzana Peciarová, Stanislav Ďuriš, Milan Kubiš

Abstract

The contribution briefly describes the Kaizen philosophy and the use of the 5S method in the laboratory of measuring techniques. It points to the improvement of measurement processes in subjects such as Metrology and Testing, Measurement Management, and Quality Management System. The application of this Kaizen philosophy and the 5S method results in the optimization of laboratory of measuring techniques at the Institute of Automation, Measurement and Applied Informatics. Using this philosophy and using some improvement methods, we try to increase the efficiency, the performance, and the quality of teaching in the laboratory of measuring techniques.

Keywords: *Kaizen philosophy, 5S method, measuring instruments, quality*

1 INTRODUCTION

The main objectives of quality management in the laboratories is the assurance of measurement processes to ensure the credibility and quality of laboratory results and their reliability, and consequently to ensure the records and documentation for both current and future use.

Every laboratory of measuring technology has a problem today. For this reason, it is very important to be aware of this situation and to start solving it. Therefore, it is necessary to define the problem and to choose the appropriate way for solving of this problem. Applying the above-mentioned Kaizen philosophy and 5S method, we want to optimize the measurement laboratory at the Institute of Automation, Measurement and Applied Informatics at the Faculty of Mechanical Engineering of STU in Bratislava. [1, 2, 7]

2 THE FACULTY OF MECHANICAL ENGINEERING

For more than seven decades, the Faculty of Mechanical Engineering of STU in Bratislava has been delivering the high-quality teaching of engineering study departments in Slovakia. During its existence, the faculty has significantly strengthened the position of significant scientific research institution both at home and abroad. This is evidenced by the mechanical engineers who are employed not only in the mechanical engineering industry, but also in the automotive, electrical, food, chemical, energy and everywhere that the machine-technology devices are in the operation. [9]

2.1 The measurement laboratory at the Faculty of Mechanical Engineering of STU in Bratislava

There are three measurement laboratories at the Institute of Automation, Measurement and Applied Informatics, namely [9]:

- ML6 - measurement laboratory;
- ML7 – metrology and measurement laboratory - it contains the devices for measuring of electrical and non-electrical quantities by the personal computer and the device for DIGIMATIC statistical production control;

- The State Metrology Centre - equipped at the Faculty of Mechanical Engineering of STU for the verification of housing water meters - through it the Faculty of Mechanical Engineering of STU is participated in solving of economic tasks in the field of metrology and measuring technology. Specifically, the Laboratory of Water Meters is designed for the verification of flow meters for hot and cold service water with the flow to 3 m^3/hour. Since 1993, it has been verified approximately 26,000 flow meters. This workplace is also used for the pedagogical work to provide the practical lessons from the metrological subjects.

The Measurement Laboratory is signed as ML6. There are instruments for measuring of electrical and non-electrical quantities - they are used for laboratory lessons in the subjects such as Metrology and Testing, Measurement of Technical Quantities, Measurement Management (Fig. 1). Measurement instruments and equipment are available to the students by the realization of their bachelor's and master's theses. Various measuring instruments that are needed for measuring are available in the laboratory, for example, in connection with the temperature in the laboratory are located (glass thermometers, resistance thermometers, thermistors, thermocouples (type K, J, T), infrared thermometer 561, thermostats (Model 10G)). [9]

Students receive different job assignments, for example, the temperature measurement with non-contact thermometers, the static characteristics of thermometers, the dynamic characteristics of thermometers, the calibration of thermometers and others. Our effort is to show to students how important is to know how to measure the quantity correctly, and then to evaluate it with the appropriate uncertainty of measurement. [9]

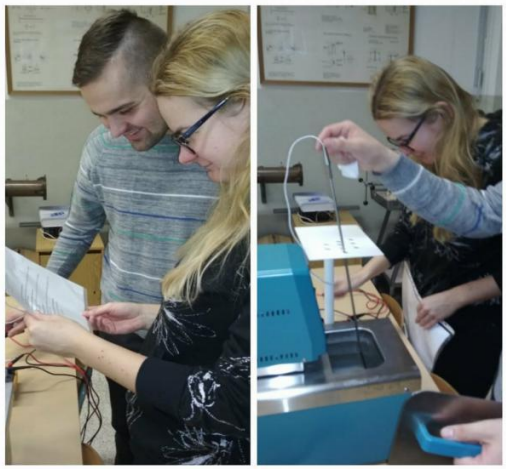


Fig. 1: The temperature measurement on Metrology and Testing subject [author]

3 THE KAIZEN PHILOSOPHY



Fig. 2: The meaning of Kaizen [5]

The word Kaizen (Fig. 2) comes from Japanese. By translating the word "kai", which means change and the words "zen", which means good. If we combine these two words, we can explain this as the continuous improvement by slow steps, whether in social, personal or working life. The term "improvement" means the dissatisfaction with the current state and that everything can be improved. [1, 3, 4, 10]
The improvement is focused on the progressive optimization of processes and work procedures, the quality increase and the rejects reduction, the material and time savings leading to the cost reductions or on the work safety, and reducing of workplace accidents. [3, 5, 6, 8]

3.1 The application of Kaizen philosophy in the measurement laboratory

In the following section, we created a couple of improvement suggestions for the Measurement Laboratory at the Institute of Automation, Measurement and Applied Informatics.
By implementing of individual measurement processes, we focused on the critical locations for which we proposed the improvements below. We have identified the critical sites by observing and monitoring of employees and students when conducting of laboratory measurements.

3.1.1 The proposal for the improvement of work boxes marking

The boxes, in which the working measuring instruments and working aids are placed, are situated in the Measurement Laboratory. At present, only the box's numeral markings are located on the boxes (Fig. 3). Even though these boxes are glazed, it is not possible to fully find out what's in the boxes. Search for these working tools is why it sometimes takes much more time than we wanted. For this reason, we would to suggest that the labels on the boxes will be placed on the exact list of working tools and meters contained in the box, thus ensuring shorter search times.



Fig. 3: Currently marking of boxes in the measurement laboratory [author]

3.1.2 The proposal for the purchase of more modern temperature measuring instrument

The students have recently used during the Metrology and Testing subject older model of measuring instrument, which was used for the temperature measurement (Thermostat) and it is shown in Fig. 4 at the bottom to the right. However, due to the increasing demands of present, we have decided to purchase the temperature measurement instrument (Model 05G/10G/20G/30G Outdoor Circulation Thermostat), which is shown in Fig. 4 at the bottom to the left with better parameters that give us more accurate measurement results.



Fig. 4: At the top of picture you can see the newest temperature measurement device located in the measurement laboratory, the bottom pictures are lower-case devices [author]

3.1.3 The proposal for the purchase of interactive whiteboard

At the moment there is only the classical writing table in the measurement laboratory. However, our effort is to modernize this teaching system and therefore we want to place the interactive whiteboard in the laboratory, which will greatly help us in the teaching of subjects. Interactive whiteboard is the electronic device, the peripheral device of computer, combining the benefits of touch screen and video projection. This learning aid enables you to interact with the computer software directly from the board environment. The possibility of touching the surface of board, and thus the object directly served, serves to improve of perception and learning, aiding to the application of clarity principle. These interactive whiteboards have already been introduced by some Slovak schools and they have proved very good in the teaching process.

Our effort is also to encourage the team collaboration of students through the brainstorming. The students on the subject of Measurement Management often work in the groups on their projects, and then everybody for their group presents the results. We currently have no Flipchart UNIVERSAL Triangle on which the paper is placed and which would serve to the students groups for the presentation of ideas and drawing of graphs.

4 THE INTRODUCTION OF THE 5S METHOD IN THE MEASUREMENT LABORATORY

In the past, there was the workshop or other work room in each household. Everybody had organized their workplace according to what they were doing. The instruments and the work scales have been stored at their discretion and their needs; the material has been stored "in close proximity". [3, 7, 8, 11]

The 5S method is based on the 5 Japanese words starting with the letter S. It is based on the basic principle of minimization (moving instruments, movements of worker, etc.) in the work activities at the workplace. The aim of 5S method is to reduce the mistakes and losses due to: the bad tools, unnecessary hand-to-hand transfer, looking for the right measuring instruments, assembling of scattered bases etc. The priority is to reduce the working time, work errors, and therefore the cost of work process. [3, 7, 11]

5S Application Procedure:

1. Seira (sort) - letting things in the laboratory just necessary for the performing of measurement, we needed to remove the unnecessary things (Fig. 5). First of all, we checked the measurement process, by which we subsequently measured. At the workplace we only prepared the instruments or documents needed for performing of measurement. We removed all the other items that could keep us or could have us load from the workplace.



Fig. 5: At the top of image, the workspace is displayed after the method deployment and at the bottom of image before the method deployment [author]

2. Seiton (set in order) - here we have precisely determined the sequence of following measurement steps from the start of measurement to the end of measurement (Fig. 6). In our case, it meant that for each of performed operations, we assigned the specific tools needed from the beginning to the end of measurement.



Fig. 6: The steps for the temperature measurement from start to finish process [author]

3. Seiso (sweeping) - we have been focusing on the return of work tool to its designated place after the end of each operation, for the sake of work tools' (see Fig. 7). All the measuring instruments, the auxiliary material, as well as the documentation needed to perform the calibration, have their specific place in case of repeated use, which will simplify the search time of individual working tools, as well as the modification of measuring station. The workplace is also necessary to keep clean, i.e. tidy.



Fig. 7: The precise layout of workstation before and after the implementation of 5S method [author]

4. Seiketsu (standardize) – continuous and repeated improvement of work organization in the laboratory. We recommend to ensure, that all workers and students involved in the measurement process are reworked as needed to respond flexibly to changes in the measurement process. Every employee should be trained to perform the previous 3S and then to implement it in each measurement process.
5. Shitsuke (sustain) - keep the perfect order and 4 previous S in the laboratory. If the employees of workplace fail to adhere to the present standards, the 5S project and the changes made at the workplace do will not contribute to the elimination of wastage, but they will, on the contrary, promote wastage. By introducing of the fifth S, random checks are carried out in the measuring equipment laboratory to check compliance with the 5S method. If the entire measurement process changes, the previous steps need to be updated. There is a need for a fast and fresh laboratory workplace to meet the new requirements of measurement process.

By introducing of 5S method in the measurement laboratory, we ensure that the laboratory worker has everything in its place, the workplace is still clean, so that responsible workers and students know what to do at the workplace and how they keep the workplace clean.
The main benefits of introducing this method into the laboratory are [2, 7, 8]:

- reducing of work space by 20 - 40 %,
- reducing of search time by 50 %,
- shortening of assembly operations by 30 %,
- quality improvement by 10 - 20 %.

5 CONCLUSIONS

The contribution includes the basic knowledge of quality and improvement of working conditions when performing of measurement in the measurement laboratory. In the article, we focused on the Kaizen philosophy and the 5S method to help us simplify and streamline the measurement operations that have been carried out, and thus increase the productivity of staff and students. Our effort is mainly to prevent the wasting, whether time, material or monetary. Of the three improvement suggestions, two proposals are already being implemented, making it easier to work and increase safety when conducting measurements in the measurement laboratory.

Acknowledgement
The authors thank the Faculty of Mechanical Engineering of Slovak University of Technology in Bratislava, the grant agency APVV projects no. APVV-15-0164, APVV-15-0295, APVV-

0857-12, VEGA project no. 1/0604/15 and no. 1/0748/15, KEGA project no. 014STU-4/2015, 039STU-4/2017 for their support by writing of this article.

References

1. BAUR, M. a kol. Kaizen: Cesta ke štíhlé a flexiilní firmě. Brno: Bizbooks, 2012, 200s., ISBN: 978-80-265-0029-2.
2. FREHR, H. U. Total quality management: zlepšení kvality podnikání : příručka vedoucích sil. 1. vyd. Brno: Unis, 1995, 258 s. ISBN 34-461-7135-5.
3. HEKELOVÁ E., PAULOVÁ, I.: Metódy zlepšovania efektívnosti a účinnosti TQM. Bratislava, Vydavateľstvo STU, 2008. 304 s. ISBN:978-80-22728-57-7.
4. KOŠTURIAK, Ján. Kaizen: osvědčená praxe českých a slovenských podniků. Vyd. 1. Brno: Computer Press, 2010, v, 234 s. Praxe manažera (Computer Press). ISBN 978-80-251-2349-2
5. MASAAKI, I.: KAIZEN - Metoda jak zavést úspornější a flexibilnejší výrobu v podniku. Prel. V. Jungmann. Brno: Computer Press, 2007. 272 s. Prekl. z ang. orig. KAIZEN, The Key to Japans Competitive Success, the first edition. ISBN: 978-80-251-1621-0.
6. MAURER, Robert. Cesta Kaizen: Z malého kroku k velkému skoku. Praha: Pavel Dobrovský -BETA, 2005, s. 24. ISBN 80-7306-178-3.
7. NENADÁL, J: et al Moderní management jakosti. Praha: Management Press , 2008. 277 s.
8. ŠOLC, M. a kol.: Nástroje zlepšovania kvality - Kaizen versus reinžiniering. Maneko, 2011. ISNN 1337-9488/130-143/
9. [3.12.2017],https://www.sjf.stuba.sk/sk/strojnickej-fakulte/o-nas.html?page_id=5307
10. [1.12.2017], http://syque.com/improvement/First%20seven%20tools.htm
11. [2.12.2017], http://www.vlastnicesta.cz/metody/5s-poradek-na-pracovisti/

Contact

Ing. Alexandra Javorská
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic
Tel: +421 949 882 040
email: alexandra.javorska@stuba.sk

Ing. Simona Klvačová
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic
Tel: +421 915 039 421
email: simona.klvacova@stuba.sk

Mgr. Ing. Jan Rybář
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic

Tel: +421 949 611 537
email: jan.rybar@stuba.sk

Ing. Zuzana Peciarová
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic
Tel: +421 904 591 227
email: zuzana.peciarova@stuba.sk

prof. Ing. Stanislav Ďuriš, PhD.
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic
Tel: +421 905 241 179
email: stanislav.duris@stuba.sk

Ing. Milan Kubiš
Slovak University of Technology
Faculty of Mechanical Engineering
Nám. Slobody 17, 812 31, Bratislava
Slovak republic
Tel: +421 949 454 878
email: milan.kubis@stuba.sk

REFLEXIA HISTORICKÝCH UDALOSTÍ A POLITICKÝCH JAVOV V DIVADELNEJ ARCHITEKTÚRE 20. STOROČIA V STREDOEURÓPSKOM KULTÚRNOM PRIESTORE

REFLEXTION ON HISTORICAL AND POLITICAL EVENTS IN THEATRE ARCHITECTURE OF THE 20TH CENTURY OF THE CENTRAL EUROPEAN CULTURE PROVENANCE

Peter Mazalán

Abstrakt

Divadlo vlastnilo vždy veľkú silu a potenciál diskutovať a byť kritickým zrkadlom komplikovaných politických a spoločenských javov. Má byť dokumentom doby a komunikačným kanálom spoločnosti. Od 20. storočia začalo divadlo narábať s novým výrazovým – konceptuálnym literárnym a priestorovým slovníkom. Architektúra v kontexte našej štúdie bude reprezentovaná scénografiou. Bude skúmaná vo vzťahu k miestu a jeho inherentným charakteristikám cez heterotopiu a synestéziu, kde sa miesto stáva sférou imaginácie publika v jeho špecifickej roli. Predmetná štúdia nechápe architektúru v klasickom význame stavby a scnénografiu ako kulisu. Môže sa stať architektonický priestor psychoanalytickým laboratóriom? Príspevok analyzuje divadlo politicko-architektonických kontextov cez performatívne koncepty Adolfa Hitlera a súčasnej scénografky Anny Viebrock.

Kľúčové slová: *divadlo, scénografia, realizmus, história*

Abstract

Theatre has the biggest power and potential to discuss the most delicate and complicated political and social issues. Its role is to be document and communication channel. Since the beginning of the 20th century theatre has started to use completely different form of its expression tools. Architecture in the context of our study will be represented by the scenography. Architecture will be explored herein in relation to space and its inherent characteristics by means of heterotopy and synaesthesia. Space as a sphere of imagination and the audience with its specific role. The study does not understand the classical term architecture as the building and scenography as a staging of decorative mise-en-scéne. Can architecture be turned into a psychoanalytical laboratory? This paper analyses theatre of political-architectural contexts by the work of Adolf Hitler and stage designer Anna Viebrock.

Key words: *theater, scenography, realism, history*

1 DIVADLO AKO UDALOSŤ

V priebehu svojho vývoja si divadelná architektúra kamenných inštitúcií osvojovala nové slohové, technické alebo dispozičné riešenia. 20. storočie prinieslo do divadla komplexné zmeny a celkom nové myslenie o jeho umiestnení. Nie sú to iba alternatívne skupiny, ktoré využívajú nezvyčajné priestory a posúvajú recepciu divadelníctva. Niektoré, aj renomované divadelné inštitúcie umiestňujú svoje produkcie alebo časť sezóny (festivaly) do priestorov, ktoré s divadelnými dielami fungujú ako priestorovo-špecifické podujatia. Stávajú sa diverzifikovnejšími a otvorenejšími aj pre nových divákov.

V dobe osvietenstva sa stávalo divadlo inštitúciou morálneho rastu jedinca a zároveň exkluzívne miesto so zachovaním dekoru. Paralelne k inštitúcii však stále existovalo pouličné

divadlo ľahších žánrov commedie dell´arte, ktorého funkciou skorej ako morlizovania bolo zábavou odpútať ľudí od každodenných starostí.
Rozmach divedelnej budovy s jej možnými scénografickými technológiami kulminoval v obodbí pribiližne posledných rokov 18. storočia do polovice 19. storočia, teda v čase národných obrodení väčšiny európskych krajín. Talianska baroková scénografia prežívala svoj vrchol, no jej ilustratívna dramatická ilúzívnosť a izolovanosť, postavená na dekoráciách ako na „najdôležitejšej divadelnej zložke“ narážala vo svojej pôvodnej idei neustále k dráme, ktorá mala snahu pracovať a prezentovať čo najviac mechanizmov a kulís. Málo pružná scénografia, nevyhovujúca novej divadelnej praxi podnietila umelcov hľadať nové miesta uvádzania dramatických textov. Divadelníci začali objavovať teda v 19. storočí možnosti uvádzania hier v iných auditoriálnych priestoroch. V tom období prekvitala po Európe stavba cirkusových budov. Boli využívané aj ako festivalové haly na uvádzania klasických hudobných symfonických diel.
Reformátori divadelného myslenia prvej polovice 20. storočia boli v oblasti architektonických a priestorových možností tvoriví a z hál prešli ešte k odvážnejším konceptom. Všetkých zjednocovala snaha k narušeniu kukátkového divadelného princípu. Vyhľadávali exteriéry amfiteátrov, nádvorí, prírodných scenérií jazier a hôr, spoluvytvárali politicko-propagandistické divadelné akcie. Produkcie presúvali do obrovských cirkusov, pôvodné divadelné sály prestavovali za účelom rušenia bariér medzi javiskom a hľadiskom. Projektovali plány nových divadelných dispozícií z ktoých najznámejším je Gropiusovo a Piscatorovo totálne divadlo.
Podľa štúdií teoretika performatívneho umenia, Richarda Schechnera, sa divadlo vzťahuje okrem jednoznačne umeleckých foriem tiež na politické a spoločenské ceremoniály či športové udalosti. Ide o podujatia „priestorovo sa odohrávajúce prevažne na veľkých plochách. Arény, štadióny, kostoly a divadlá sú stavby, ktoré nebývajú ekonomicky sebestačné...tieto priestory sú využívané nárazovo a intenzívne. Majú jedinečné usporiadanie, ktoré umožňuje veľkej skupine ľudí sledovať malú skupinu - a zároveň si uvedomovať samú seba. Takéto usporiadanie vyvoláva dojem obradnosti a oslavy ...v priestoroch, kde sa performuje realita, dochádza k oživeniu a znovupotvrdeniu morálnych hodnôt spoločenstva - posilňujú spoločenskú spolupatričnosť“ (Schechner, 2009, s. 28).
Na takýchto miestach pôsobí na zmysly recipientov mnoho faktorov. Javy a objekty sa tu prezentujú ako scénované udalosti.

1.1 Divadlo politickej megalománie

Uvažovať o divadle a divadelnej scénografii ako o špecifickom dianí v urbanistickom a architektonickom priestorovom merítku je možné v prípade, keď skupina ľudí, ktorí sú pozorovateľmi je koncentrovaná na udalosť predvádzanú inou skupinou alebo jednotlivcom. Takéto miesto a architektúra sa v novom kontexte stretnutia stáva jemu prislúchajúcim symbolom. Je spravidla dodekorovaná a tým umocňuje priebeh akcie.
Ak skúmame tiež divadlo ako inscenátormi a interpretmi pripravené a naskúšané profesionálne scénicko-dramatické dielo, medzi najväčšie inscenované projekty odohrávajúce sa na uliciach, námestiach alebo v halách patria politické (vojenské) prehliadky, slávnosti a zhromaždenia. Takéto predstavenie býva subvencované štátom, je divadlom obrazov a obvykle prezentovania ceremoniálnej rutiny. V období revolúcie, zmien a prevratov však dramaturgické, rečnícke a vizuálne repetíctie svoj význam strácajú. V dejinách nastalo niekoľko obratov, kedy politikum narábalo so silným vizuálnym znakom a sebareprezentáciou. V období 20. storočia môže patriť k najväčším inscenátorom takto chápanej produkcie jeden z najväčších diktátorov: Adolf Hitler. Uvažoval o estetike a umeleckej forme ako o nevyhnutnej súčasti a nástroji k dosiahnutiu svojich megalomanských politických plánov. Považoval sa nie za politika ale umelca. Zdôrazňoval to

svojím kolegom, spoločníkom aj oficiálnym osobnostiam (Spotts, 2007, s.12). Dôkazom sú aj poznámky k jednému z jeho prvých prejavov, kde sa vyjadruje, že politiku nie je možné študovať, nie je vedou, ale umením - Staatskunst (Spotts, 2007, s.51). Hitlera už v mladosti počas jeho prvej návštevy opery (Wagnerov Lohengrin) v Linzi okúzlilo operné umenie so svojim Gesamtkunstwerkom. Rovnaké nadšenie však cítil pre literatúru, výtvarné umenie a architektúru. Keď ako mladý muž odišiel do Viedne, v očarení architektúrou verejných budov a mestských tried si privirábal ako amatérsky maliar jej uličných kompozícií. Očarila ho budova viedenskej opery, a práve divadelná budova, všeobecne, v ktorej sa tento druh umenia predvádzal, neskôr označil za dôležitý indikátor kultúrnosti mesta a národa. Vo Viedni sa tiež dvakrát neúspešne usiloval o prijatie na Akadémiu výtvarných umení (Akademie der bildenden Künste). Po jeho umeleckých neúspechoch sa Hitler rozhodol odísť do Mníchova, ďalšieho vtedajšieho kultúrneho centra, kde začala po prvej svetovej vojne jeho politická kariéra spojená s očarením davov sledujúcich jeho veľkolepé divadelné schopnosti.
Hitler rozumel emotívnej moci symbolov; dôležitosti výrazu obsiahnutom v kostýme - straníckej uniforme, vlajke a ikonografii (Spotts, 2007, s.59). Z operných diel mu bol známy účinok temna a svetla. Na zhromaždeniach chcel u publika vyvolať pocity vtiahnutia do mystického spoločenstva, porovnateľný so stavom náboženskej extázy (Spotts, 2007, s.66). Scénické efekty, ktoré využíval v uliciach a na námestiach narábali s ohňom (pochodne, vysoké stojany na uliciach s plameňmi), dymom a mnohými červeno-čiernymi textíliami – vlajkami so svastikou.
Hitlerovým sídlom a reprezentatívnym a až kultovým miestom sa v tridsiatych rokoch stal Klenzeho mníchovský Königsplatz s neoromantickou zástavbou monumentálnych architektonických galerijných solitérov a propyleje. Ideálnym miestom na prezentáciu nacistických myšlienok mal byť obdĺžnikový a izolovaný pôdorys s jasnou možnosťou rozvrhnutia priestorového vzťahu hľadisko – pódium.
Impozantné masové zhromaždenia organizované až za tmy boli vybavené silnými protilietadlovými svetlometmi. V lineárnom zoradení vrhali lúče do oblohy až niekoľko kilometrov. Pri Hitlerovom príchode, ktorý bol nastavený tak, aby sa na neho čakalo ako na vzácnosť, začala znieť symfonická alebo zborová hudba, rozozneli sa zvony, salvy, bolo počuť bombardéry. Takéto okázalé stranícke zhromaždenia sa konali vždy v septembri a celkom ich bolo desať. Prvý bol organizovaný v Mníchove v roku 1923, nasledoval Weimar (1926), potom Norimberk (1927, 1929, 1933-1939) (Spotts, 2007, s.70). Aby mohli Hitlerove rituálne podujatia fungovať, zriadil v roku 1936 funkciu „ríšskeho scénografa“. Stal sa ním Beno von Arent, nemecký divadelník, scénograf. Mal tvoriť scény pre ríšske reprezentatívne udalosti ako aj pre divadelné produkcie.
Politka a z nej vyplývajúca moc znamenala pre Hitlera nástroj k realizácii jeho nenaplnených umeleckých ambícií z mladosti. Zhodli sa na tom ľudia z jeho okolia, historici a jeho životopisci. Svedkovia a novinári týchto okázalých udalostí vyslaný zo zahraničia boli z podujatí, ktoré zočili unesení. Bertold Brecht sa vyjadril o Hitlerovom prirodzenom zmysle pre divadlo ako o kombinácii dokonalých scénických efektov, divadelníckych šlágrov a politických podvodov. Označil ho za „sehr interessantes Theater“ (Spotts, 2007, s.65).
Spoločensko-politické obraty znamenajú zväčša komplexné zmeny. Prvé desaťročia 20. storočia ich priniesli do divadelnej praxe niekoľko. V Ruskom divadle znamenala politická revolúcia aj nové nástroje k získaniu „pracujúcich“ divákov. Jeden z najznámejších experimentátorov - Vsevolod Emiljevič Mejerchold hlása počas a po revolúcii myšlienku, že „politická revolúcia má vyústiť v totálnu revolúciu divadla a divadlo sa má teda dať do služieb revolučnej agitácie, má sa stať pôsobivým sprostredkovateľom ideí socializmu a nového štátu.“ Tiež má dôjsť k „zdivadelneniu života“. K tomu už v roku 1910 píše: „Chceme preč z divadelných budov. Chceme hrať v živote samom, najlepšie vo fabrikách a veľkých továrenských halách. Dekorácie musia pripomínať interiér tovární s ich železnými

konštrukciami. Herec nesmie už byť jednostranným profesionálom, ale robotníkom, ktorý po skončení pracovnej zmeny hrá divadlo“ (Spurná, 2013, s.40).
Pre nového diváka, ktorý nepoznal konvenčné meštianske divadlo, boli nové konštruktivistické výtvarno - významové symboly atraktívne. Ešte väčšmi však formy davového divadla. Tieto masové udalosti upevňovali jednotu sovietskeho ľudu a jeho podporu komunistickej strane a sovietskej vláde. Historici vidia inšpiráciu ruskej revolúcie v jej veľkom francúzskych modeli. Sila tisícich divadelných štatistov na pozadí reálnych symbolov a tiež architektúry ako scénografie bola účinným nástrojom nahradiť režim kultúrnej hierarchizácie egalitárnou, revolučnou kultúrou (Von Geldem, 1993, s.6). Podľa Gelderna je možné za prvého moderného nadšenca masových podujatí považovať J.J.Rousseaua, ktorého myšlienky si osvojil počas revolúcie aj Robbespierre. Veril v ich silu a účinok k národnej jednote.
Masové divadelné festivaly manipulovali svojimi inscenáciami hodnotu miesta a času. Revolucionári zdedili miesta starých režimov, ktoré reflektovali hierarchizáciu ich hodnôt. Na centrálnych námestiach boli umiestnené monumenty autokracie, ktorá sídlila v najreprezentatívnejších častiach centra miest. Inscenácie premiešali urbanistickú hierarchiu novými významnými trasami a miestami uctievania. Priestor získal nový význam. Námestia neboli viac monumentom aristokracie, vynulovali svoj historický význam a stali sa modelom egalitarizmu (Von Geldem, 1993, s.43).
Spojeným rituálom a drámou, revolúcia vytvorila svoje „dejstvo“. Rituál a dráma však narába so symbolmi a rozprávaním príbehu pre svoje publikum svojimi vlastnými cestami. Zjednotená komunita sledujúca rituál je publikom chápajúcim jeho konvencie, zatiaľ čo dráma si ich tvorí a definuje sama. Geldern ďalej tvrdí, že jej vlastný jazyk môže byť preto diverzifikovanému publiku jasnejší a lepšie pomôcť identifikácii sa s neznámymi ideami. Ruskí umelci pochopili dôležitosť sprostredkovať odkaz každému v rozdelenom publiku takou formou dramatizácie mýtu revolúcie, ktorý je schopný spojiť široké segmenty spoločnosti (Von Geldem, 1993, s.139).
Medzi najslávnejšie davové predstavenia, patrí Dobytie Zimného paláca. Vzniklo v réžii Nikolaia Evreinovova a v scénografickom prevedení Jurija Anenkova v roku 1920 pri príležitosti tretieho výročia Októbrovej revolúcie v Petrohrade. Odohrávalo sa na obrovskom námestí v okolí Zimného paláca v prítomnosti 150 000 divákov a 4000 účinkujúcich vojakov a námorníkov. „Do tmy svietia okná paláca, potom nasledujú kontrastné výjavy na protiľahlých plošinách. V Zimnom paláci sa radí Kerenského vláda, v oknách sa mihajú siluety byrokratov. Na druhej strany námestia sú postavené dve plošiny opisujúce pôdorys budov. Ľavá, červená strana predstavuje svet práce, na pravej strane je biele pódium Kerenského dočasnej vlády. Pódia spájal mostný oblúk...na námestie nastupuje proletariát.
Kerenského vláda opúšťa pódium a uteká do paláca kde je na nich zaútočené. V oknách zimného paláca zazrieme bojujúce siluety. Po chvíli ticha a tmy sa na priečelí rozžiari päťcípa hviezda“ (Zavarský, 1980, s.91).
Iným významným inscenovaným dielom bolo divadelné predstavenie filmového režiséra Sergeja Eisensteina; Plynové masky (1924). Bolo jeho posledným divadelným a umeleckým počinom pre experimentálnu sovietsku umeleckú inštitúciu Proletkult. Hra Sergeja Tretyakova bola napísaná na motívy novinového článku o sovietskych robotníkoch snažiacich sa utesniť únik plynu. Hra bola spisovateľom koncipovaná na javisko, no Eisenstein ju uviedol v moskovských plynárňach. Scénografiou boli obrovské cisterny, systém rebríkov, lávok a lešení. Diváci sledovali dianie z lavičiek v úrovni haly. Divadlo bolo prenesené do reálneho a fungujúceho konštruktivistického priestoru fungujúcej fabriky. Skutočným hlukom a štipľavým zápachom bolo dosiahnutý ideálny a autentický divácky zážitok. Eisensteinovým ďaľším manévrom faktografickej dramaturgie bola na konci

predstavenia výmena „zmeny hercov“ za reálnych robotníkov. Hra bola však stiahnutá po štyroch predstaveniach aj z dôvodu nezrozumiteľnosti textov a akcií (Goodwin, 1993, s.30).

2 DIVADELNÁ SCÉNOGRAFIA ARCHITEKTÚRY

Dráma prešla počas svojho vývoja mnohými svojimi umiestneniami; od simultánneho stredovekého javiska, cez renesančné iluzívno-perspektívne, humanistické hrané v palácoch a na akadémiách, dekorované barokové, po jej naturalistické zobrazenia. Dramatický priestor ostal po celé obdobie oddeleným symbolickým svetom. Súčasné nové divadlo alebo ako nazýva jeho predchodcu Lehmann – postramatické divadlo je priestor síce zdôrazňovanou ale zvyšnou časťou sveta. Je časopriestorovým ohraničeným výsekom, ale zároveň aj doplňujúcou časťou a tým zlomkom životnej skutočnosti. Úsek cesty, ktorý za sebou v klasickom divadle zanecháva predstaviteľ roly, označuje ako metafora alebo symbol fiktívny úsek cesty. V druhom, metonymicky fungujúcom priestore predstavuje cesta, ktorú autor podnikne, najprv odkaz na priestor divadelnej situácie a poukazuje cez seba na reálny priestor hracieho poľa, divadla a okolitého priestoru (Lehman, 2007, s.189).

Fenomén režisérskeho divadla narába a manipuluje publikum a herca cez svoju špecifickú scénografiu v podobe rôznych médií. Narábanie s mestom a architektúrou ako kreatívnou substanciou v divadelnom médiu neprebieha iba v duchu site specific diel. Kamenná inštitúcia divadla už dokáže pracovať cez svoju scénografiu a réžiu s architektonickým dielom ako s objektom schopným generovať cez svoju reprezentáciu uveriteľnú sociálnu imitáciu. Známe stavebné dielo alebo typológia, sloh, pretransformované do mierky divadelného javiska tak dovoľuje divákom cez individuálne schopnosti tlmočiť a pretvárať príbehovosť a vzťahovosť drámy aj ku ich individuálnym zážitkom.

Divadlo citujúce realitu vyvoláva vo väčšine prípadov v kontexte s dramatickým dielom zázemie pre iróniu, nostalgiu alebo depresívny charakter. Takýto charakter našej prítomnosti, spočívajúci z veľkej časti v našej neschopnosti predstaviť si nejakú uspokojivú budúcnosť, je jednou z príčin, prečo v oblasti kultúrnej produkcie tak výrazne vzrástol záujem o minulosť. Kurátor súčasného umenia a filozof Dieter Roelstraete pripisuje tento jav ku historiografickému obratu v súčasnom umení (Zálešák, 2013, s.14). Podľa neho sa táto tendencia vyformovala predovšetkým z dôvodu absencie pozitívnych tém prítomnosti a vyhliadok do budúcnosti, na začiatku 21. storočia. Záujem umenia je sústredení predovšetkým na genealógiu súčasnosti, nie na reflektovanie aktuálneho stavu.

Teoretik Chris Lorenz charakterizuje zmenu akademického štúdia histórie od osemdesiatych rokov 20. storočia. Popisuje ju aj ako prítomnosť traumatickej, katastrofickej a prenasledujúcej minulosti, ktorá nechce odísť preč (Zálešák, 2013, s.28). Teoretik literatúry, Andreas Huyssen v tejto súvislosti rozpráva o „posadnutosti pamäťou“, kde novosť je stále častejšie spojovaná so spomínaním a minulosťou, skôr ako s očakávaním a budúcnosťou (Zálešák, 2013, s.30).

Spracovávanie fragmentárnych materiálov archívneho charakteru, ktoré sú častým materiálom ku konceptom umenia si v sebe ponechávajú atraktívny priestor pre vlastnú imagináciu a interpretáciu. Vo svojej podstate nesú v sebe vždy detektívny a bádateľský obsah potenciálnych možných scenárov.

Súčasná divadelná prax, i keď divadlo samé o sebe je antropologickou štúdiou, preberá vo svojej kontextuálnosti a interdisciplinarite antropológiu aj v rovine výskumu konkrétneho miesta nie už ako scénogafiu, no skutočné miesto udalosti, teritórium, jeho zdokumentovanie a kontextualizovanie.

Ak študujeme divadelný priestor ako heterotopický, bude mať v určitej sociálnej skupine, dokonca aj väčšej, možnosť formovať utváranie kolektívnej pamäte. Teoretička literatúry, Svetlana Boym chápe kolektívnu pamäť ako „zdielané orientačné body v každodennom živote“, ktoré preklenujú a začleňujú individuálne spomienky do zdielanej sociálnej siete

(Zálešák, 2013, s.74). Umelecké obrazy tvorené symbolmi tak dostávajú špecifickú naratívnosť, čitateľnú pre zdielateľov tejto kolektívnej pamäte.
Súvisí to s dramaturgickou a scénickou voľbou spracovávať v divadelnom umení citácie na predmety alebo objekty vzťahujúce sa na historicky nedávne obdobie do roku 1989 (konkrétne napríklad v diele scénografky Anny Viebrock). V súčasnom divadle je prezentovanie konkrétnych vizuálnych symbolov z obdobia pred rokom 1989 nástrojom k „ostalgickému" diskurzu. Pojem ostalgia, vzniknutý spojením slov Ost (Východ) a algia (smútok) sa zrodil v bývalom východnom Nemecku.
Spoločnosť a jeho priestor sa utvára vo vzájomnom vzťahu porozumenia vlastnej minulosti a prítomnosti. Toto porozumenie sa materializuje najmä v miestach, ktoré táto spoločnosť obýva alebo v miestach kde im chce porozumieť – v našom prípade v divadlách. Takáto syntéza umení prináša architektúru a scénografiu aj do oblasti spoločenských a umelckých vied, neostáva tak iba technickou disciplínou (Petelen, 2003, s. 175)

2.1 Divadlo politickej irónie

Nemecká scénografka Anna Viebrock patrí v súčasnosti so svojim unikátnym umeleckým rukopisom medzi najdôležitejších scénických výtvarníkov súčasného nového divadla. V našom kontexte bude zaujímavá predovšetkým jej spolupráca so švajčiarskym režisérom Christopherom Marthalerom a jeho hudobným divadlom narábajúcim v kolážach s diverznými hudobnými výstupmi.
Téma divadelnej scénografie je považovaná za doplnkovú zložku komplexného Gesamtkunstwerku, a teda teoretický izolovaný diskurz o ňej bez režisérskeho a hudobného výkladu nebýva (nie je považovaný za) relevantný. Scénický priestor však v niektorých prípadoch dokáže vygenerovať miesta - diorámy výrazovo a významovo natoľko silné, že fungujú aj samotné ako určenie zásadného konceptu. Takú scénografiu, ktorá je prerozprávaním reálnych miest a teda pracovaním s ich geniom loci tvorí v dokonalej podobe nemecká scénografka Anna Viebrock spolu najmä so švajčiarskym režisérom Chritophom Marthalerom. Tvorba oboch umelcov je spojená predovšetkým s Baselským divadlom; činohrou, autorskými projektmi a operou. Marthaler ako vyštudovaný hudobník zapracúva do svojich autorských drám vždy silný moment hudobných čísel prezentovaných aj činohernými interpretmi. Pracovať pre neho s Viebrock znamená rešpektovať jej silný výtvarný názor a prejav už od prvých konceptuálnych skíc.
Obdobie od päťdesiatych rokov 20. storočia dostáva oproti minulým obdobiam do divadla sociálny faktor príbehu. Ten začína hrať v jeho estetike kľúčovú rolu. Od sedemdesiatych rokov divadlo ovplyvňujú silné konceptuálne tendencie no zároveň historizujúco a iluzionisticky prezentovaná realita (Mueller, 2010)
Viebrockovej scénografia sa zjavuje ako metafyzická hyperrealistická štúdia priestoru práve z období päťdesiatych a šesťdesiatych rokov. Jej idiosynkratický, neagresívny a stále čitateľný priestor s vysokou mierou imaginácie, estetiky, sociálnej a politickej reflexie pracuje s opotrebovanými priestormi ako narátormi a svedkami. Patina sa stáva štýlom života nie len triviálnym zobrazením doby. Viebrockovej scénické riešenia sú svojim obrazom vždy jej osobným nazbieraným a nafoteným materiálom. Je pre ňu vodítkom fakt, že iba autentické a intenzívne veci sa zaryjú hlboko do podvedomia. Hladá a nachádza preto inšpirácie, ktoré su v urbanistických štruktúrach odkázané na zánik a demoláciu.
Výtvarne pracuje Viebrock s aktuálnymi a nadčasovými ideami, momentom divákovho vedomia a poznania. Kapitalizmom, vzťahom východného a západného Nemecka. Ilustrácia a reprezentácia paralelnej nemeckej politickej duálnej dimenzie je neklamným vizuálnym a sociálnym dokumentom presúvajúcim svoju stále aktuálnosť do súčasného kontextu. Viebrockovej steny sú ako paradoxom k padnutiu múru v Berlíne, symbolom konca komunizmu. Nie sú to dogmy, ktoré majú v súčasnosti silu, ale interpretácie príbehov.

Zvláštne miesta s ich vlažnými kriminálnymi prípadmi, priestory, ktoré sa zdajú v ich semiotickom kontexte surreálne (Masuch, 2000)

Vysoká estetizácia, imaginácia, sociálnohisotrická a politická reflexia sa stávajú dokumentom doby a jeho výpoveďou. Jej inšpiráciou sa stáva najmä architektúra Nemeckej demokratickej republiky doby 50. a 60. rokov so svojou špecifickou vizuálnou dimenziou. Patina, ktorú na javisku vo svojich starších architektúrach kreuje ale nie je znakom staroby ale príbehom každého jedného objektu a hrdinu. Kedže pochádza Anna Viebrock z nemeckého povojnového prostredia, chápe priestor ako dialóg medzi západom a komunistickým východom. Múry, ktoré jej technici v divadlách stavajú sú paradoxom k „pádu Múru" a režimu. Jej miesta majú byť vyjadrením nie dogiem spojených s udalosťami, ale príbehov. Osudov, ktoré sa odohrávajú v iba zdanlivo normálnych miestach.
Surreaálnosť priestorov získava scénografka používaním scénicky nezvyčajných detailov ako vypínače, zástrčky alebo vykurovacie a vodovodné systémy. Cez technické elementy tak dosadzuje na javsiko nečakané herecké akcie alebo zvukové efekty.
Atmosféra vybudovaná Viebrock a Marthalerom na javisku pripomína teoretické dielo antropológa Marca Augého Ne-miesta: Úvod do antropológie supermodernity, kde teoretik popisuje pominuteľné miesta s akousi neosobnou funkciou a charakterom. Takýmito miestami podla neho môžu byť letisko, supermarket, hotelová izba alebo dialnica (Augé, 2012)
Spomedzi réžijno-scénických konceptov Marthalera a Viebrock kde sa pracuje s citáciou urbanistickeho prostredia existujúcej zástavby aj v kontexte skladateľa hudobného diela patrí inscenácia Janáčkovej opery Káťa Kabanová pre Salzburský festival z roku 2008. Tvorcovia konceptu si zašli pre inšpirácie priamo do Brna. Anna Viebrock našla pre Janáčkovu drámu niekoľko urbanistických a architektonických objektov. Brnenská bytovka z obdobia socializmu opatinovaná časom a fontána spred Janáčkovho divadla sa o niekoľko mesiacov ocitli na javiskách viacerých významných európskych operných domov. Vievrock vytvorila fascinujúce prostredie vnútorbloku alebo vnútorného dvoru bytovky, kde bol odohraný celý príbeh. Jednotlivé charaktery opernej drámy mali v dispozičnej schéme určené svoje pevné pôdorysy. Dvor bol prerastením vnútornej izby otapetovaním. Izby, ktorá sledovala a bola nebezpečná. Život komunity za oknami na poschodiach sa prizeral tragédii odohrávajúcej sa v úzkostlivom ohraničení. Jediné miesto intímnych výpovedí sa stala fontána. Skutočná fontána transformovaná a existujúca, žijúca svoj reálny príbeh.
Silné viebrockovské výpovede pracujúce so znakmi a symbolmi, ktoré poznáme alebo aspoň tušíme, poskytujú divákom novú formu divadla. Komunikujú mesto a jeho príbeh s atmosférou a geniom loci do čiernej kocky alebo pozlátenej podkovy.

Použitá literatura

1. AUGÉ, M. *Nicht-Orte.* Mníchov: Verlag C.H. Beck, 2012. ISBN 978-3-406-60568-0.
2. GOODWIN, J. *Eisenstein, cinema, and History.* [online]. Illinois: University of Illinois Press, 1993, [cit. 2017-02-01]. Dostupné na: https://lnk.sk/ltFT
3. LEHMANN, H. *Postdramatické divadlo/ Postdramatisches Theater.* Bratislava: Divadelný ústav, 2007. ISBN 978-80-88987-81-9.
4. MASUCH, B. *Anna Viebrock. Buehnen/Räume*, Berlin: Theater der Zeit, 2000. ISBN 3-934344-02-X.
5. MÜLLER-TISCHLER, U., UBENAUF, M. *Das vorgefundene erfinden*, Berlin: Theater der Zeit, 2010. ISBN 978-3-942449-03-8.
6. PETELEN, I., HRONSKÝ. M. *Interiér.*Bratislava: Vydavateľstvo STU, 2003. ISBN 80-227-1866-1

7. SCHECHNER, R. *Performancia: teórie, praktiky, rituály.* Bratislava: Divadelný ústav, 2009. ISBN 978-80-89369-11-9.
8. SPOTTS, F. *Hitler a síla esteitky.* Praha: Nakladatelství Epocha, 2007. 448 s. ISBN 978-80-87027-08-0.
9. SPURNÁ, H. *Dejinny svetového divadla 3*, Olomouc: Univerzita Palackého v Olomouci, 2013. ISBN 978-80-244-3604-3.
10. VON GELDEM, J. *Bolshevik festivals 1917-1920* [online]. Londýn: University of California Press, 1993, [cit. 2017-02-01]. Dostupné na: https://lnk.sk/jv59
11. ZAVARSKÝ, J. *Zápisky zo scénografie,* Bratislava: Osvetový ústav Bratislava, 1980.
12. ZÁLEŠÁK, J. *Minulá budoucnosť.* Brno: Vysoké uční technické, 3013. ISBN 978-80-214-4794-3.

Kontaktné údaje

Ing.arch., Mgr.art. Peter Mazalán, PhD.
Fakulta architektúry Slovenskej technickej univerzity
Námestie slobody 19, 812 45 Bratislava
Tel: +421 903 927 641
email: peter.mazalan@gmail.com

FENOMÉN NÁHODY AKO JEDEN Z INDIKÁTOROV KVALITY ĽUDSKÉHO ŽIVOTA

THE PHENOMENA "LUCK" AS ONE OF THE INDICATORS OF THE QUALITY OF HUMAN LIFE

Júlia Drbúlová

Abstrakt

Keď sa rozhliadneme okolo seba, zistíme, že svet, v ktorom žijeme nespĺňa naše predstavy o spravodlivosti. Deň čo deň stretávame množstvo ľudí, ktorých životy tragicky poznačili neblahé životné pomery či zlé výchovné praktiky. Rovnako tak stretávame ľudí, ku ktorým bol osud viac než priaznivý. Márne hľadáme odpovede na otázky: Prečo niektorí ľudia trpia a iní nie? Prečo vytrvalé úsilie niektorých jednotlivcov nevedie k ničomu, zatiaľ čo iní dosiahnu úspech bez námahy? Prečo zhýralec trýzniaci vlastné telo končí svoju životnú púť v porovnaní so zdravo žijúcim jednotlivcom v podstatne vyššom veku? Možno to má čo dočinenia s genetickými predispozíciami, rozumovými schopnosťami či mentálnym postojom ľudského indivídua. A možno je to všetko záležitosťou náhody.

Kľúčové slová: *náhoda, neistota, nepredvídateľnosť,nevedomosť, nemohúcnosť*

Abstract

When we look around, we find that the world, in which to live our lives does not fully meet our ideas of justice. Every day we meet a lot of people whose lives have tragically highlighted poor living conditions or bad educational practices. Likewise we meet people to whom fate was more than favorable. Vainly we are looking for the answers to the questions: Why some people suffer and others do not? Why the persistent effort of some people lead to nought, while others achieve success without effort? Why rake abuses its own body dies in comparison with healthy living individual a significantly higher age? Maybe it has something to do with genetics, intellectual abilities, or mental attitudes of the individual. And maybe it is all a matter of luck.

Key words: *luck, uncertainty, unpredictability, ignorance, impotence*

1 ÚVOD

„Jedno je isté... pokiaľ bude ľudský život pokračovať, potiaľ v ňom náhoda bude hrať významnú úlohu..."

Nicholas Rescher

Úloha náhody v živote ľudského jedinca či spoločnosti ako celku je dodnes jednou z najdiskutovanejších filozofických tém. Už v helenistickom Grécku viedli súdobí myslitelia neúnavné debaty o úlohe heimarmene (εἱμαρμένη), osudu nemilosrdne vládnuceho nad záležitosťami ľudí a bohov, bez ohľadu na všetko ich vynaložené úsilie, túžby či priania.
Problematika náhody spolu s otázkou, do akej miery človek dokáže ovládať svoj vlastný osud rovnako neunikla pozornosti renesančných mysliteľov, ktorí sa vo svojich úvahách prikláňali k názoru, že racionálne úsilie ľudského pokolenia môže zvíťaziť nad náhodnosťou vonkajšieho sveta. Napríklad taliansky renesančný učenec Poggio Bracciolini (1380-1459) vo svojom traktáte *De miseria humanae conditionis* kládol dôraz práve na účinnosť racionálnej

cnosti: „*Sila šťasteny nie je nikdy tak veľká, aby ju neprekonali vytrvalí a odhodlaní ľudia*“[1] „Šťastena“ je v tomto zmysle definovaná ako stret medzi bdelým ľudským rozumom a rovnako racionálymi silami, ktoré Boh vložil do prírody.[2] Avšak nie všetci myslitelia boli vo svojich úvahách tak optimistickí.Taliansky renesančný filozof 15. storočia Niccolo Machiavelli (1469-1527) bol toho názoru, že všetko dianie vo svete je spolovice dielom osudu a spolovice resp. jej časti dielom človeka. Nepoddajnú silu osudu pritom prirovnal k rozbúrenej rieke, ktorá „*... zaplavuje roviny, vytrháva stromy, rúca domy, splavuje hlinu a na inom mieste ju ukladá... všetci pred ňou utekajú, vzdávajú sa pred neskrotnosťou tohto živlu a nesnažia sa mu vzdorovať... to však neznamená, že by v čase, keď pokojne preteká svojím korytom, nemali budovať hrádze, hĺbiť koryto, zvyšovať brehy, a tým obmedziť jej ničivé, bezuzdné následky v období povodní.*“[3]

2 NÁHODA – ZDROJ ĽUDSKÉHO ÚSPECHU ČI TRÁPENIA NA ZEMI?

Položme si celkom triviálnu otázku: Čo je to náhoda? Oxfordský výkladový slovník definuje náhodu ako: „*... nepredvídateľnú udalosť, ktorá priaznivo alebo nepriaznivo ovplyvňuje záujem ľudského jedinca.*“ [4] Vo všeobecnosti pritom jestvuje hneď niekoľko spôsobov ako možno nahliadať na samotnú problematiku jej existencie. Prvý z nich zastávajú jednotlivci rezolútne popierajúci akúkoľvek možnosť jej exstencie. Niektorí z nich dokonca tvrdia, že existencia náhody nie je nič iné ako povera, ktorej veria tí, ktorí nechápu teórii pravdepodobnosti. Ak by jej totiž dostatčne rozumeli, nikdy by neverili v niečo tak „nevedecké“ ako je náhoda. Nie je ničím iným, než slovom používaným pri opise mylných predstav o skutočných dôvodoch nespočetného množstva udalostí, ktorých sme v priebehu svojho života svedkami. V zásade pritom patrí do slovnej zásoby poverčivých ľudí, ktorí chcú jednak vzbudiť dojem, že sami prenikli do podstaty veci, jednak zastaviť úsilie o pochopenie príčin a účinkov tých ktorých udalostí. Zástancom teórie náhodnosti vyčítajú, že hoci nepoznajú koncepciu kauzality, sami poukazujú na to, že skutočnosť, podľa ktorej B nasleduje po A nemusí nutne indikovať platnosť kauzálneho vzťahu. Takáto predstava sa v intenciách ich presvedčenia javí rovnako mylou ako tvrdenia typu: „*.. vzhľadom na to, že akonáhle som opustil dom začalo pršať, samotný akt opustenia domu spôsobil, že začal padať dážď...*“[5] Zaiste, podľa racionalistu nič také ako náhoda nejestvuje. Avšak povedzte to hráčovi hazardných hier, ktorému práve päťkrát za sebou padla na minci hlava. Sám je presvedčený o tom, že pri ďalšom hode nepadne nič iné ako opäť hlava. Iný hráč môže zastávať názor, že keďže na minci padla päťkrát za sebou hlava, pri ďalšom hode padne znak. Zažíva pocit šťastia, nakoľko vie, že pri ďalších pokusoch budú padať na minciach znaky. Zrejme by nemalo zmysel hovoriť komukoľvek z nich, že minca nemá pamäť a každý ňou realizovaný hod je celkom nezávislý od toho, ktorý mu predchádzal alebo bude bezprostredne nasledovať. Koniec-koncov sami rezolútne odmietajú prijať fakt, že náhodné udalosti sú nepredvídateľné. Pravdepodobnosť, že pri ďalších realizovaných pokusoch padne na minci hlava resp. znak je 50 na 50. Napríklad, ak si hráč hodí mincou miliónkrát, teória pravdepodobnosti mu napovie, že v prípade polovice realizovaných pokusov padne hlava resp. znak. To však neznamená, že po každom hode, kedy na minci padne hlava bude nasledovať znak a naopak. Môže dôjsť k sérii hodov, pri ktorých budú padať hlavy resp. znaky, avšak ich pomer sa nakoniec vyrovná.

[1] RESCHER, N.: *Human Interests: Reflections on Philosophical Anthropology*. USA: Stanford University Press 1990, s. 84.
[2] Porov. SCHMITT, C. B., SKINNER, Q.: *The Cambridge History of Renaissance Philosophy*. UK: Cambridge University Press 1988, s. 648.
[3] MACHIAVELLI, N.: *Vladař*. Praha: vydavateľstvo Ivo Železný 1997, s. 86.
[4] RESCHER, N.: Luck and the Enigmas. In: *Philosophic Exchange.*1993, 24(1), s. 98.
[5] KILLEEN, J. M.: *A Matter of Luck* . Padstow: Barzipan Publishing 2014, s. 10.

Okrem toho jestvuje pomerne široká plejáda spiritualistických teórií presadzujúcich názor, v intenciách ktorého „šťastenu“ možno ovplyvniť duchovnými prostriedkami za pomoci istých rituálov. Množstvo kultúr a náboženstiev po celom svete kladie dôraz na schopnosť jednotlivca ovplyvniť povahu svojho osudu vykonávaním rituálov zahŕňajúcich tie najrôznejšie obete, znamenia či čary. Napríklad mezoamerické náboženstvá Mayov, Aztékov a Inkov kládli osobitý dôraz na vzťah medzi konkrétnymi rituálmi a šťastnou náhodou. Praktizovaním ľudskej obety sa usilovali získať priazeň a náklonnosť bohov. Na africkom kontinente dominovali tradičné rituály či šamanské praktiky (napr. voodoo, hoodoo...), ktorých prívrženci zastávali názor, podľa ktorého je tretia strana (napr. šamani, čarodejinice...) schopná ovplyvniť osud ľudského indivídua.

Náhoda je niečím nevyspytateľným, niečím, čo nám svojím pôsobením bráni žiť život výlučne racionálne zmýšľajúceho ľudského indivídua. Sama osebe znemožňuje jednotlivcovi cieľavedome kreovať povahu vlastného života. Inak povedané, vyššie zmienený fenomén môže zmariť každé ľudské snaženie bez ohľadu na všetko nami vynaložené úsilie. Americký filozof a pedagóg John Dewey (1859-1952) vo svojej práci *Čas a individualita* (*Time and Individuality*) veľmi správne poukázal na riskantnosť ľudskej vytrvalosti vo vzťahu k nevypočitateľnosti všetkého diania vo svete: „*Nikto nevie, čo rok alebo dokonce deň - môže so sebou priniesť. Zdraví sa stanú chorými, bohatí chudobnými, mocní budú ponížení, sláva sa zmení na ohováranie. Ľudia sú vydaní na milosť a nemilosť silám, ktoré sami nemajú pod kontrolou. Viera v osud a náhodu, dobro a zlo je jednou z najrozšírenejších a najpretrvávajúcejších ľuských presvedčení. Náhoda býva uctievaná mnohými národmi. Osud bol ustanovený za absolútneho vládcu, ktorého moci sa musia podvoliť dokonca aj bohovia. Viera v bohyňu náhody a nevypočitateľného šťastia má medzi zbožnými ľuďmi zlú povesť, avšak ich viera v prozreteľnosť je prejavom úcty ku skutočnosti, podľa ktorej žiaden jednotlivec nemá kontrolu nad vlastným osudom. Premenlivosť života a konečné miesto jednotlivca bolo vždy spojené s premenlivosťou, zatiaľ čo neočakávané a neovládateľné zmeny boli späté s časom... Nič netrvá večne, život je chvíľkový a všetky pozemské veci sú pominuteľné.*“[6] Z vyššie uvedeného citátu je okrem iného zrejmé, že podstata náhodnosti tkvie v nepredvídateľnosti. Sami totiž žijeme vo svete, v ktorom sa nič nedeje na základe vopred známeho plánu. Široké spektrum udalostí odohrávajúcich sa vo svete nezriedka ovplyňujú činitele, ktoré sú mimo našej kontroly. Oblasti, do ktorých vkladáme všetky svoje sny, túžby či nádeje môže zasiahnuť fenomén náhody a svojím pôsobením napomôcť k uskutočneniu resp. zmareniu tých najtajnejších prianí. Spôsoby akými naň pôsobia však sami nedokážeme predvídať. Svoje životy žijeme niekde uprostred strachu a nádejí.

Vo svete, v ktorom žijeme sa dôvera v silu náhodnosti javí do istej miery nevyhnutná. Inak povedané, svojimi skutkami môžeme svetu predkladať konkrétne návrhy, avšak povaha ich dôsledkov býva nezriedka mimo dosahu našich schopností, daností či vedomostí. Vzhľadom na uvedené je v mnohých prípadoch práve náhoda faktorom určujúcim hodnotu toho-ktorého konania.[7]

Náhodnosť je pravým opakom nevyhnutnosti. Hovoriť o náhode v podstate znamená hovoriť o niečom, čo má neisté, nedefinovateľné či nie presne postihnuteľné „nastavenie“, jednoducho o niečom, čo je celkom imúnne voči zámerom a počinom ľudského jednotlivca. Neistota sama osebe pritom odporuje schopnosti jednotlivca porozumieť konkrétnej situácii, sebavedome konať, určovať a následne dosahovať stanovené ciele.

Stav neistoty je spoločným produktom nevedomosti a nemohúcnosti. Pojem nevedomosti možno interpretovať ako prerušenie pomyselného spojenia medzi našimi očakávania, túžbami či nádejami a skutočnosťou. Nemohúcnosť naopak signuje rozkol medzi tým, čo sme schopní

[6] DEWEY, J.: Time and Individuality. In: *The Later Works,1925-1953*: *Volume 14:1939-1941*. Carbondale: Southern Illinois University Press 1984, s. 98.

[7] Porov. RESCHER, N.: Luck and the Enigmas, c. d., s. 97.

dosiahnuť a tým, čo by dosiahnuť chceli. Kým pocit neistoty zažívame vtedy, keď nepoznáme faktory pôsobiace na povahu situácií, ktorým sme vo svojom živote vystavení, nemohúcnosť sa nás zmocní vo chvíli, keď sa nemôžeme vyhnúť podozreniu, že hoci sme zostavili kompletný súpis takýchto faktorov, sami nemáme dostatok prostriedkov, zručností či možností na to, aby sme ich „uviedli do pohybu", poprípade eliminovali ich vplyv. Namiesto toho, aby nám nadobudnuté poznatky dodali odvahu, pokoria nás, nakoľko odhalia našu nedostatočnosť. Aj toto je dôvod, prečo nás pocity neistoty a nemohúcnosti uvádzajú do nepríjemného stavu. Vzhľadom na vyššie uvedené skutočnosti čoraz častejšie vkladáme všetku našu nádej a dôveru „do rúk" vede primárne si kladúcej za cieľ nahradiť neznalosť vedomosťou, ako aj neustále napredujúcim technológiám umožňujúcim nám efektívnejšie konať.[8]

3 ZÁVER

Je nesporným faktom, že element neistoty vzbudzuje záujem jednotlivcov, kolektívov či celých spoločností o ich budúce smerovanie. Osobitnú dôležitosť pritom prikladajú životným udalostiam vyznačujúcim sa absolútnou nepredvídateľnosťou. Nielen pri čítaní románov, divadelných hier či dobrodružných príbehov, ale aj v každodennom živote ľudia poväčšine s nadšením vítajú pozitívne ladené prekvapenia či neočakávané zvraty. Práve tie totiž aktívne participujú na formovaní ich psychologického založenia. Vyjadrené slovami Nicholasa Reschera: „*Je zrejmé, že naše psychologické založenie sa vyvíja... prispôsobuje svetu, ktorého budúcnosť je z veľkej časti neprístupná našim rozumovým schopnostiam... svetu, ktorého budúce smerovania zostáva skryté za nepreniknuteľným závojom nepredvídateľnosti...*" [9]

Zaiste medzi ľuďmi môžu kolovať tie najrôznejšie dohady o existencii bytostí, v živote ktorých náhoda nezohráva žiadnu úlohu, bytostí ktorých telesnú kondíciu, životné pomery či sociálny status ovplyvňujú vopred predvídateľné skutočnosti. Takéto bytosti budú viesť život bez obáv, prekvapení či náhlych zvratov. Avšak stvorenie žijúce život predvídateľný vo všetkých jeho relevantných aspektoch je niekým podstatne sa diferencujúcim od nás samých.

Naše afektívno-emocionálne nastavenie v nás stimuluje pocit odporu k životu v absolútne predvídateľnom svete, svete v ktorom je budúce smerovanie jednotlivca už vopred rozpoznateľné v realitách prítomnosti. Túžba ľudského jedinca dosiahnuť nové možnosti, zakúsiť neopakovateľné zážitky či zažiť jedinečné skúsenosti sa podieľa na utváraní jeho mravnej identity. Falošná predstava o živote vo vopred naprogramovanom svete v nás prirodzene stimuluje pocit odporu. Ak by sme sa pokúsili eliminovať zo svojich životov vplyv náhody a prispôsobiť dlhodobo stabilným podmienkam, prestali by sme byť tým, kým sme, t.j. racionálne zmýšľajúcimi bytosťami, ktoré potrebujú pre svoj osobnostný rozvoj výzvy, inovácie a zmeny. V tomto zmysle sa únik pred každodennou rutinou či stereotypom stáva dôležitým faktorom našich životov. Človeku je totiž od prírody vlastná túžba po neustálnom rozširovaní si vlastných horizontov: „*Homo sapiens je bytosťou obdarenou neukojiteľnou potrebou skúmať...*"[10]

Fenomén náhody vnáša do našich životov istú dávku vzrušenia. Predvídateľnosť, stabilita či nemennosť naopak nudu, nezáujem a apatiu. Nikto predsa nechce sledovať zápas medzi špičkovým tímom a amatérmi z okolia, či rovnakú športovú udalosť na päťdesiatich rôznych televíznych programoch. Je to práve element nepredvídateľnosti, ktorý u jednotlivca podnecuje záujem. Eliminovať zo života ľudského jedinca náhodu znamená pripraviť ho o prežitky s ňou súvisiace.

[8] Porov.BAUMAN, Z.: *Collateral Damage: Social Inequalities ina Global Age*. UK: Polity Press 2011, s. 95.
[9] RESCHER, N.: Luck and the Enigmas, c. d., s. 102.
[10] Tamže, s. 102-103.

Použitá literatúra

1. BAUMAN, Z.: *Collateral Damage: Social Inequalities in a Global Age*. UK: Polity Press, 2011. 224 s. ISBN 978-0-7456-5294-8.
2. DEWEY, J.: Time and Individuality. In: *The Later Works,1925-1953*: *Volume 14:1939-1941*. Carbondale: Southern Illinois University Press, 1984. 98-114 s. ISBN 0-8093-1084-8.
3. KILLEEN, J. M.: *A Matter of Luck*. Padstow: Barzipan Publishing, 2014. 192 s. ISBN 978-0-9573792-6-8.
4. MACHIAVELLI, N.: *Vladař*. Praha: vydavateľstvo Ivo Železný, 1997. 106 s. ISBN 80-237-3544-6.
5. RESCHER, N.: *Human Interests: Reflections on Philosophical Anthropology*. USA: Stanford University Press, 1990. 198 s. ISBN 978-0804718110.
6. RESCHER, N.: Luck and the Enigmas. In: *Philosophic Exchange.*1993, 24(1), s. 95-123. ISSN 0193-5046.
7. SCHMITT, C. B., SKINNER, Q.: *The Cambridge History of Renaissance Philosophy*. UK: Cambridge University Press, 1988. 922 s. ISBN 0-521-39748-0.

Kontaktné údaje

Mgr. Júlia Drbúlová
Univerzita sv. Cyrila a Metoda v Trnave, Filozofická fakulta
Nám J. Herdu 2, 917 01 Trnava
Tel: 0908 520 122
email: julia.drbulova@gmail.com

.

WARSAW AUTUMN – A PHENOMENON OF THE 50S, 60S AND 70S OF THE 20TH CENTURY

Adéla Ziegelbauerová

Abstract

This text is focused on festival Warsaw Autumn. It contains three chapters, from which one is divided into three subchapters, concentrates on individual views of the 50's, 60's and 70's of this festival. These are information obtained from reviews of contemporary press and monograph about Warsaw Autumn by A. Zborski and T. Kaczyński and also from monograph about Witold Lutosławski by D. Gwizdalanka and K. Meyer.

Key words: *Warsaw Autumn, New Music, reflection from contemporary press*

1 INTRODUCTION

Warsaw Autumn is the largest Polish international music festival. And in the selected period it was also the only great festival of the contemporary music in the countries of the so-called Eastern Bloc. The festival was initiated by Polish composers – Tadeusz Baird and Kazimierz Serocki in 1956 under the auspices Polish Composers' Union.[1] Starting with this year, with the exception of 1957 and 1982, the festival is organized annually in the second half of September and lasts for a 9 days. From the reflection of the contemporary press and the evaluation of the composers themselves, the most important range was between the 1950s and the 1980s from the point of view of presenting the music of the contemporary composers. Since the beginning of its existence, the festival has been aimed at presenting Polish and world-wide new contemporary music. Right from the beginning of the festival was an effort to present music completely aesthetically different from the time promoted and partially privileged socialist realism. The Warsaw Autumn thus provided a relative creative freedom, enabling contact with new creative directions in art and right through this not could only Poles but also others from the former Eastern Bloc deeper know the compositions by eg. Schönberg, Berg, Webern, Varése, Boulez, Nono, Maderna and Stockhausen.[2] Kaczynski said the festival was born out of a natural desire for contact with the West, with which the contacts were interrupted artificially after the war.[3] That's why not only the young Polish composers were so crafty after their return to European awareness, they wanted to make the centre of the contemporary music from Warsaw, as was in Darmstadt, Donaueschingen, Cologne, Venice, etc.).

2 WARSAW AUTUMN

Initial initiation of the Warsaw Autumn festival can be found in 1955. Polish Composer´s union prepared the second year of Festival of Polish Music. From the compositions submitted for inclusion in the festival programme and from the tremendous success of the organized event, it starts to profiled, that after the war composers composed so much new music, that it would be worth organizing musical event exclusively focused on the contemporary music to confront Polish contemporary works with the West, to break the isolation of Polish music

[1] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 3.
[2] Ibidem.
[3] Ibidem.

centres and also present to the Polish composers compositions by composers from the West.[4] Certain political loosening in the 1950s allowed to Kazimierz Serocki, Grazyna Bacewicz, Jerzy Jasieński and the Polish Composers' Union more easily and clearly declare and promote the ideas and intentions of the organization of the contemporary music festival. With the promise of a confrontation of Western and Eastern music, where East Music is, of course, profitable, the government has agreed. The festival was scheduled for 10–21. 10th 1956. The effort was not to organize a festival of composers for composers, but to make the contemporary music available to all who are interested in it.

2.1. View of the 1950s

In spite of all the efforts to present only newly created music, the first festival year was still different from the others in the presentation of the music from today's perspective the classic of the 20th century, such as Arthur Honegger, Karol Szymanowski, Béla Bartók, Maurice Ravel, Bohuslav Martinů, Arnold Schönberg, Alba Berg, Anton Webern, Leos Janacek, Sergey Prokofiev, Richard Strauss and others. Kaczyński marked the first year not only as a presentation of the music of the contemporary composers, but also of the music of their "fathers."[5]

In the early years was presented music of the Polish composers, so-called Paris school[6] such were Piotr Perkowski, Kazimierz Sikorski, Stanisław Wiechowicz, also music by the middle generation (Grażyna Bacewicz, Witold Lutosławski, Michał Spisak), young generation (Tadeusz Baird, Kazimierz Serocki) and the youngest composers (Wojciech Kilar). Indeed contemporary music then represented eg Olivier Messiaen *(Les Offrandes oubliéss*). Patrons of the fisrt year were Karol Szymanowski, to whom was dedicated an inaugural concert and Nadia Boulanger, present as an honorary guest. At the festival took part many excellent musicians – eg. conductor Geogre Georgescu, Jan Krenz, soloists David Oistrach, Irena Dubińska, Alfred Brendel and others.[7]

The year 1958, the second year of the festival, we can mark as the year of birth so-called Polish avant-garde music. The festival brings work of Henryk Mikołaj Górecki inspired by Webern (*Epitafium*), very emotional composition *Musique funebre* by Witold Lutosławski in which new mathematical structures combines with deep concentration for form and expression, *Four essays* by Tadeusz Bair and *Symphony No. 4* by Roman Palestr. Further, we can find on festival programme schedule name such were Karlheinz Stockhausen (as the first presented electronic music on festival among others *Gesang der Jünglinge*) or John Cage with composition Music of Changes. Even so, it was not a purely contemporary thing, because on schedule we can find a music by so-called 2nd Viennese school – among others, Schönberg's

[4] GWIZDALANKA, Danuta a Krzysztof MEYER. *Witold Lutosławski. Droga do dojrzałości, sv. 1.* Kraków: Polskie Wydawnictwo Muzyczne, 2003, s. 305.

[5] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 3.

[6] This generation of composers debuted in the thirties of the 20th century, a link to them was study by Nadia Boulanger, to the compositional style of these composers penetrated neo-classical compositional style of Boulanger herself. The influence of French music to Polish begins with Fryderyk Chopin and continues with Piotr Perkowski, who founded the Association of young Polish musicians in Paris in 1926, attended by Stanisław Wiechowicz, Kazimierz Sikorski, Tadeusz Szeligowski, Józef Koffler, Bolesław Woytowicz, Konstancy Regamey and composers of a slightly younger age, such as Antoni Szalowski, Zygmunt Mycielski, Grażyna Bacewicz, Roman Maciejewski, Stefan Kisiselewski, etc. (HELMAN, Zofia. Muzycy i muzyka polska w Paryżu w okresie międzywojennym. *Muzyka.* 1972, č. 2, s. 93.)

[7] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 4.

Surviving Warsaw and *Moderner Psalms*, Berg's *Violin Concerto*, Weber's composition *Das Angenlicht* and *Fünf Satze op. 5*.[8]

In the 1950s, organizers and composers had in fact creative freedom, beside the Twelve-tone technique was also heard electronic music, neo-classicist music, punctual music, as well as the music by Italian futurists. Good reviews then depended on the amount of use of the new means of expression. The aim of the festival programme committee was to familiarize the audience with the avant-garde news, and so only sporadically appeared compositions connected directly to the tradition. Adventuring with avant-garde music also confirms the number of scores published by the PWM Publishing House. Despite all the effort to present avant-garde and the latest songs, the organizers have not met only with success. The so-called Cheerful Youth (led by the son of composer Tadeusz Szeligowski) protested against giving preference to the youngest and most modern composer's generation by active participation, emotional exhortations and whistle at the festival's concerts. In general the festival visited plenty visitors, as evidenced students filling the places between seats of the concert hall.[9]

The debut at the festival marked a certain success, not only in the form of stormy applause, but also as a guarantee of the recording of the album and the publication of a score by the Polish Music Publishing House. Warsaw autumn became a place for the realization of the new music, a place where the composers established or renewed contacts and the place where begin delight in Polish music and thanks to which the Polish composers also received music orders eg. from the West German Radio.

Emil Hlobil, commenting the first Warsaw Autumn in the article "Travelling to Poland" in Musical Reviews, said that Poles' compositions had a very strong content and an emotional expression. He himself remarked that the thesis about the national character of the composer's expression in relation to the masses and traditions is less dogmatic in Poland than in Czechoslovakia.[10]

Stefan Kisielewski in Ruch Muzyczny wrote that the views of critics are under the influence of ideology, only sporadically wrote outside of this influence. Therefore, it is not surprising, that the concerts, by the mouth of the evaluators express only author's snobbery. According to Kisielewski, this was the most interesting musical event that ever took place in Poland.[11] The same opinion had Michał Spisak who after returning to France criticized in the French press these biased reviews.[12] Generally, Bogusław Schäffer said, there were presented music in three spheres on the first festival´s year – so-called contemporary classics (Bartók, Stravinsky), well-known works by contemporary composers (Hongger, Shostakovich, Prokofiev) and works completely unknown (Berger, Jolivet). He thus asked the organizers for more up-to-date music, from abroad, to get to know the entire composer community with the new music. [13]

On the other hand, Jaroslav Jiránek criticized not only the progress of the programme committee, which did not follow either the way of aesthetics (as problematic he saw the conflicts of individual styles), nor historically (the presentation of older compositions), but

[8] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 4..

[9] GWIZDALANKA, Danuta a Krzysztof MEYER. *Witold Lutosławski. Droga do dojrzałości*. sv. 1. Kraków: PWM, 2003, s. 299.

[10] HLOBIL, Emil. Z cesty do Polska. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1956, **IX**(16), 674–675

[11] KISIELEWSKI, Stefan. Utwory polskie na Międzynarodowym Festiwalu Muzyki Współczesnej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 20–21.

[12] SPISAK, Michał. O Warszawskiej Jesieni Muzycznej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 25–27.

[13] SCHÄFFER, Bogusław. Utwory obce wykonane na I Międzynarodowym Festiwalu Muzyki Współczesnej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 23–25.

called Polish music as a mere searching for experiments, in the procedures of young Polish composers even saw a danger in the sphere of uncritical dependence on western patterns.[14]
The fact that the number of reviews was written under the influence of ideology, commented Ludwig Erhardt, the reviews become biased.[15] As an example could be used the assessment by Václva Felix, who strictly defined against serialism, which according to him presents only shudder and shame. He also criticized Polish music, in which dominated the extreme individualistic directions – like in Gorecki´s *Symphony No. 1*, punctualism in the compositions by Penderecki, or compositions by Baird or Szalonek, the audiences were just snobs and ignorants.[16] In general, it is possible to state a huge gap in a music reception in Poland and Czechoslovakia.
The confrontation of Western and Eastern music and a kind of anthology of the music of the 20th century – thus could be described the 1950s of the festival. This is also confirmed by Bohdan Pociej, who described the year 1959 as a breakthrough, because it was possible to hear a huge evolution in music, the composers did not have only one compositional style that would remain odd, but managed to change the work from the work due to the inspirations and suggestions from the West.[17]
The festival's credits were, among other things, the creation of a listening and composing background of New Music, the presentation of contemporary music, the formation of the so-called Polish Composing School, the expansion of the festival's awareness abroad, including the promotion of Polish composers, and last but not least the possibility of literally "absorbing" the compositional tendency of the West for Poland and the remaining countries of the so-called Eastern Bloc.

2.2. View of the 1960s

In the 1960s the Polish composing avant-garde has increased its position – especially Penderecki, Górecki, Kotoński, Schäffer, but also composers associated with the more traditional expression in their production included to the new one new compositional elements – eg. Lutosławski, Baird, Serocki etc. In the 1960s, Polish music presented at the festival was an attraction, which literally pulling the audiences from abroad.[18]
The year 1961 is very fruitful in the terms of the presentation of new Polish music, not only that Lutosławski for the first time introduced *Jeux Vénitiens* in Poland with elements of controlled aleatory within the limits of clarity, which Hurník described as a playful play,[19] but in the same year Penderecki´s sonoristic work – *Threnody to the Victim of Hiroshima* was presented and also subjectively love testimony – Erotyki by Baird with a vocal sense of melodicity, although serially jagged.[20] A rather biased Vilém Pospisil said that the greatest attraction was works of extreme modernist direction, but the compositions were short, especially because the composers themselves were aware of the lack of compositional

[14] JIRÁNEK, Jaroslav. Varšavské meditace nad soudobostí. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1958, **XI**(20), 821–825.
[15] ERHARDT, Ludwik. Jesień za pasem. *Ruch Muzyczny*. Kraków: PWM, 1959, (13), 4–10.
[16] FELIX, Václav. Varšavské meditace nad tvůrčí svobodou. Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa. Praha: Syndikát českých skladatelů, 1959, **XII**(19), 808–809.
[17] POCIEJ, Bohdan. Świat awantgardy na marginesie III Warszawskiej Jesieni. *Ruch Muzyczny*. Warszawa: Bibliotea Narodowa, 1960, (1), 9–10.
[18] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 5.
[19] HURNÍK, Ilja. Řada jako služebník a diktátor. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, **XV**(3), 94–95.
[20] MYCIELSKI, Zygmunt. Warszawska Jesień 1961. *Ruch Muzyczny*. Kraków: PWM, 1961, (21), 1–4.

expression. He labelled the festival as a lab to classify values.[21] In the 1960s, however, the interest of Czechoslovak critics in the events in Poland is growing, as is evidenced by 4 publicists and their evaluation in 1960 – Pospíšil´s in Music Reviews, the most persuasive rating by Střelka in Slovak music and Kopelent and Dolanska positive and relatively objective reviews in the Literary newspapers.[22]

Also in 1962, there were voices calling for socialist realism, that condemning new music styles as below average, useless for example in the compositions by Kilar or Szalonek and on the contrary, the right direction of new music and creative freedom and heroism in the struggles for the most important values of the life dominated in the works by Shostakovich or Prokofiev.[23]

The premieres of Polish compositions by foreign artists only prove that the Warsaw Autumn became a full-fledged part of European musical life. Also, in the area of criticism, there gradually appeared personalities familiar with problematic of contemporary music (like Volek, Lébl, Fukač) at the expense of those traditionally holding traditionalism. Aleatorika, as a compositional technique, was understood as a liberating mean of multiserialism and mathematical rational practices, among the Poles most widely used in the field of rhythm. For example, the Volek notes that Polish avant-garde is not a generation that would deny or ignore the human character of music. The mainstream of New Music is still in Darmstadt, Warsaw Autumn is only a branch.[24] Gradually, on the festival is a retreat a serialism and punctualism. Even though that the Polish avant-garde has managed to keep pace with the world's music events in their compositional language still remained linking to basic aesthetic elements. In the 1960s, aleatory dominated, rationality was replaced by open, multifaceted forms. Thus, in Poland, they managed to raise a strong, contemporary music interested society. Kaczyński, on the other hand, claims that the peak of the festival is slowly going away.[25]

Since the second half of the 1960s, it could be tracked development of synthesis , for example serialism and controlled aleatoy – in the Gorecki´s work Elements for 3 string instruments or Szalonek´s Les Sons. In this developmental festival´s period, the personality of Gyorgy Ligeti appeared in the programme, whose works do not dominate neither aleatory nor serialism, but timbre or micropolyphonic – *Apparitions* and later *Atmosphéres*. On the other hand, the Penderecki´s synthesis with a baroque traditional form was considered like a step back (eg. Cello Sonatas), is relatively negatively evaluated. Like a top compositions were also marked a *Mother* by Marek Kopelent or *Mystery of silence* by Miloslav Kabeláč. Zdeněk Candra finds the success of these compositions primarily in the absence of ambitious participation in the sphere of the extreme experiment. According to him, the New music as well as Warsaw Autumn were in crisis – a quality was drowned in quantity. He lacks stormy debates, great emotions, whistles, the audience became indifferent and haughty.[26] Kaczyński agreed, if he meant, that in following year the avant-garde will die. Also Jan Weber said, that entire

---

[21] POSPÍŠIL, Vilém. Varšavská jeseň – Krize Invence? *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1961, **XIV**(19), 827–828.

[22] HONS, Miloš. *Hudba jako horký tep života: kapitoly z dějin české hudební estetiky, vědy a kritiky od Února k Srpnu (1948–1968)*. Praha: Togga, 2015, s. 107. Musica Viva. ISBN 978-80-7476-089-1.

[23] KARÁSEK, Bohumil. Festival křižovatek a konfrontací. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, **XV**(19), 810–813, NEUMANN, Věroslav. Doznívání Varšavy. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, **XV**(20), 852–853.

[24] VOLEK, Jaroslav. Varšavská jeseň posedmé. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1963, **XVI**(19), 804–807.

[25] KACZYŃSKI, Tadeusz. Dwie prawdy o Festivalu. *Ruch Muzyczny* .Kraków: PWM, 1963, (22), 3–4.

[26] CANDRA, Zdeněk. Úvahy na okraj Varšavské Jeseně. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1965, **XVIII**(21), 832–834.

musical community had been accustomed of the festival music and accepted the music as a normal, not shocking

While in 1963 there were a shift away from serialism and total organization of tonal material and in the year 1965 they found liberation in the aleatoric, interest in sound and colour, there has now been a searching for new sound options of the classical musical instruments, sound collages and connecting music with light, motion and theatre.[27] Composers, according to Marian Jurik, returned to the form, shape, soundness, in the pursuit of perfection, which led to the essentially subdued poor impressionism. This sound searching and the effort to integrate poetry and music did not go away. As a good example is the composition by Penderecki, which has perfectly estimated the capacity of the innovation to synthesize.[28] Already in the work *Stabat Mater* (1962), and later in *St Luke Passion* (1963–1966) was synthesized Bach's forms like an aria or recitative, renaissance multi-bourgeois, symphony of the 19th and 20th centuries and elements of New Music

Jiří Fukač later evaluated the situation in Poland and objectively says that Warsaw does not want to, and can not to be, an objective "exhibitor" of samples. According to him, while in Czechoslovakia prevailed improvised wannabe concrete compositions, there are no electronic studios or orchestras willing to play new scores without scruples and is still discussing the ethical-aesthetic aspect of New Music, in Poland, they have been able to built up the ideal equipment to realize this New music on a high-level, they also have suitable musical ensembles and well-educated audience. Current tendencies in music presented on Warsaw Autumn he saw as splashing in the sea of synthesis, where questions of the national character and emotionality, expression and soundness are coming to the fore.[29] Gradually, in the later years there appeared an rather sceptical opinion about New music. The cause was seen in the exhaustion of the means of expression, New music thus ceases to be original both by material and compositional processing. The result of such music are prefabricated pieces, which are still entangled instead of the thoughtful tectonics. Kaczyński to the years 1967, 1968 and 1969 said, that the first of them was a sign of the crisis, the second we can marked as the worst, while the third could be ranked among the best. For the first time in 1969 minimal music appeared, represented by music by Morton, Feldman, Riley, etc. on the other hand there appeared archaic works such were Górecki´s Old Polish Music. From the Polish composing school dominated the middle generation, especially Lutosławski and Baird.[30]

2.3.View of the 1970s

In 1973, the festival was attended by a relatively large number of delegates from Czechoslovakia – Hrčková, Beneš, Kabeláč, Kalabis, Kopelent etc. It was also reflected in the festival's assessment, where Hrčková stated that the first phase of the festival, presented by avant-garde, which enchanted simplicity and shocked the freshness, were replaced by phases with compositions that were overwhelmed by the past and the leaking presence and now were replaced by synthesis, and this one will only show the future direction for the next generation.[31] During the seventies, there appeared notable works of Polish composers (Lutosławski, Serocki, Górecki, Baird, Kilar, Penderecki), but also foreign works in Poland

[27] ŠEFL, Vladimír. Varšavské čekání. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1966, **XIX**(20), 632–635.

[28] JURÍK, Marián. Kríza fetsivalu alebo Novej hudby? Na margo Vyršavskej jesene 1966. *Slovenská hudba*. 1966, X(11), 471–473.

[29] FUKAČ, Jiří. Varšavská realizace. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1967, **XX**(19), 604–606.

[30] ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983, s. 6.

[31] HRČKOVÁ, Naďa. Pokus o diagnózu. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Svaz českých skladatelů a koncertních umělců, 1974, **XXVII**(1), 27–28.

unknown eg. Black Angels by Goerge Crumb and works of classic of the 20th century , such as Satie´s Vexations, or The Cunning Little Vixen and The Dead House by Leoš Janáček. Jan Vičar also evaluated the event in Warsaw in the seventies and noted that despite the fact that experiments had disappeared, it was added more valuable music, though a more traditional focus.[32] The year 1978 was dominated by foreign music, such as Messiaen, Xenakis or Berio. Also, Soviet music was interesting more than ever – the compositions by Alfred Schnittke, Arvo Pärt, Bronius Kutavičius and others appeared. On the other hand, the works of young artists were missing this year.

3 CONCLUSION

The Warsaw Autumn has a tremendous tradition from today's perspective, and it is therefore possible to demonstrate on its programmes a rather comprehensive musical development of new music. Warsaw was rightly referred to as an "open window" in the so-called Iron Curtain, or as an island of creative freedom. Not only did the festival visit a number of foreign guests, but thanks to it also the place of contact between the East and the West also emerged. In spite of all the progress and relative freedom, the Soviet government did not give up the possibility of censorship, which made programme changes. [33] Nowadays, the organizers still aim to present contemporary music while confronting it with Polish music. The festival is a place to debate, to formulate new tendencies and new opinions. n spite of everything, it tries to avoid stickers that new music is dedicated to a small group of specialists. The concert halls so visited not only young music lovers. The organizers of the festival collaborate with leading artistic ensembles, such as the National Philharmonic Orchestra, the National Opera, Polish Radio, Polish Television, various musical institutes, but over time the concerts go to new places, especially sports halls, factories and clubs. The reflection of the festival in the contemporary press provides a fairly comprehensive view of the contemporary music scene and in particular, shows a frequent opinion gap in the evaluation of individual concerts and the whole years of the festival in the views of the time-paid reviewers and critics in the fifties and sixties and their gradual reconciliation in the years to come. Warsaw Autumn was, at the time, the only serious festival of contemporary music in Central and Eastern Europe (if we neglected Darmstadt, founded in 1946,which influenced the development of the post-war avant-garde). With a little exaggeration it can be said that the festival managed to introduce everything that took place in the music of the 20th century. The visitors thus had the opportunity to hear both neo-classicism, neo-folclorism, expressionism and dodecaphony, sonorism, timbre, aleatory, minimalism, punctualism and the other directions of the first and second half of the century, in the compositions of leading representatives such were Janáček, Martinů, Schönberg, Webern, Stravinsky, Shostakovich, Milhaud, Ives, Hindemith, Varese, Cage, Britten, Maderna, Messiaen, Stockhausen, Nono, Ligeti, Crumb and many others. Among the Czech composers were successful eg. Kabeláč, Kopelent, Kalabis, Klusák. The 1950s feature not only the works of foreign but also Polish production, the festival was marked not only by post-war new compositions but also by the compositions of the classics of the 20th century. In contrast, the 1960s can be described as the most progressive in the field of musical speech and the festival´s peak. The 1960s provided a gateway to the world not only to the Poles, but also to the whole former Eastern Bloc, especially to the sphere of experimental music and musical means of expression of both world parts. In Poland, it appears so far little known compositions, like was Musique concrète, electronic music and, in general, western avant-garde music. These new compositional procedures Polish composers managed to integrate in a listening-like form – eg. Lutosławski *Jeux Venetiens* with elements

[32] VIČAR, Jan. Varšavská jeseň ´76. Hudební rozhledy 1977, XXX(12), 561–564.
[33] BACULEWSKI, Krzysztof. *"Warszawska Jesień" : kalendarium subiektywne pięćdziesięciu festiwali* Warszawa: 2007, s. 23.

of aleatory or Penderecki´s sonoristic *Trenody*. The seventies then represent the synthesis period. Dramaturgical and compositional development has led to the reintegration of subtlety, warmth, historicism and folklore. Gradual abandonment of the news and direction towards the loud music works was the content of these years.

Sources

1. BACULEWSKI, Krzysztof. "Warszawska Jesień" : kalendarium subiektywne pięćdziesięciu festiwali Warszawa: 2007.
2. BOR, Vladimír. Varšavská jeseň 1970. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Svaz československých skladatelů, 1970, XXIII(12), 550.
3. CANDRA, Zdeněk. Úvahy na okraj Varšavské Jeseně. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1965, XVIII(21), 832–834.
4. ECKSTEIN, Pavel. Zápisky z Varšavy.: Hrst dojmů z I. mezinárodního festivalu soudobé hudby. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa.* Praha: Syndikát českých skladatelů, 1956, IX(23), 980–981.
5. ERHARDT, Ludwik. Jesień za pasem. *Ruch Muzyczny*. Kraków: PWM, 1959, (13), 4–10.
6. FELIX, Václav. Varšavské meditace nad tvůrčí svobodou. Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa. Praha: Syndikát českých skladatelů, 1959, XII(19), 808–809.
7. FUKAČ, Jiří. Varšavská realizace. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1967, XX(19), 604–606.
8. GWIZDALANKA, Danuta a Krzysztof MEYER. *Witold Lutosławski. Droga do dojrzałości, sv. 1*. Kraków: Polskie Wydawnictwo Muzyczne, 2003. ISBN 978-83-2240-835-3.
9. HELMAN, Zofia. Muzycy i muzyka polska w Paryżu w okresie międzywojennym. *Muzyka*. 1972, č. 2, s. 93.
10. HLOBIL, Emil. Z cesty do Polska. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1956, IX(16), 674–675
11. HONS, Miloš. Hudba jako horký tep života: kapitoly z dějin české hudební estetiky, vědy a kritiky od Února k Srpnu (1948–1968). Praha: Togga, 2015. Musica Viva. ISBN 978-80-7476-089-1.
12. HRČKOVÁ, Naďa. Pokus o diagnózu. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Svaz českých skladatelů a koncertních umělců, 1974, XXVII(1), 27–28.
13. HURNÍK, Ilja. Řada jako služebník a diktátor. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, XV(3), 94–95.
14. JIRÁNEK, Jaroslav. Varšavské meditace nad soudobostí. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1958, XI(20), 821–825.
15. JURÍK, Marián. Kríza fetsivalu alebo Novej hudby? Na margo Vyršavskej jesene 1966. *Slovenská hudba*. 1966, X(11), 471–473.
16. KACZYŃSKI, Tadeusz. Dwie prawdy o Festivalu. *Ruch Muzyczny* .Kraków: PWM, 1963, (22), 3–4.

17. KARÁSEK, Bohumil. Festival křižovatek a konfrontací. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, XV(19), 810–813.
18. KISIELEWSKI, Stefan. Utwory polskie na Międzynarodowym Festiwalu Muzyki Współczesnej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 20–21.
19. MYCIELSKI, Zygmunt. Warszawska Jesień 1961. *Ruch Muzyczny*. Kraków: PWM, 1961, (21), 1–4.
20. NEUMANN, Věroslav. Doznívání Varšavy. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1962, XV(20), 852–853.
21. POCIEJ, Bohdan. Świat awantgardy na marginesie III Warszawskiej Jesieni. *Ruch Muzyczny*. Warszawa: Bibliotea Narodowa, 1960, (1), 9–10.
22. POSPÍŠIL, Vilém. Varšavská jeseň – Krize Invence? *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1961, XIV(19), 827–828.
23. SCHÄFFER, Bogusław. Utwory obce wykonane na I Międzynarodowym Festiwalu Muzyki Współczesnej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 23–25.
24. SPISAK, Michał. O Warszawskiej Jesieni Muzycznej. *Ruch Muzyczny*. Kraków: PWM, 1957, (1), 25–27.
25. ŠEFL, Vladimír. Varšavské čekání. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1966, XIX(20), 632–635.
26. VIČAR, Jan. Varšavská jeseň ´76. Hudební rozhledy 1977, XXX(12), 561–564.
27. VOLEK, Jaroslav. Varšavská jeseň posedmé. *Hudební rozhledy: měsíčník skladatelů a hudebních vědců Československa*. Praha: Syndikát českých skladatelů, 1963, XVI(19), 804–807.
28. ZBORKSI, Andrzej a Tadeusz KACZYŃSKI. *Warszawska jesień*. Kraków: Polskie Wydawnictwo Muzyczne, 1983.

Kontaktní údaje

Mgr. Bc. Adéla Ziegelbauerová
Ostravská univerzita, Pedagogická fakulta, katedra hudební výchovy
Fráni Šrámka 3, 709 00 Ostrava-Mariánské hory
Tel: 725 611 542
email: adela.ziegelbauerova@seznam.cz

THE SUPRANATIONALITY OF THE EUROPEAN COMMISSION AND ITS CRITICISM IN TERMS OF EUROSCEPTIC THINKING

Monika Práznovská

Abstract

The European Union is currently facing a certain degree of criticism in its executive competencies. In connection with the criticism of the decision-making mechanism at European level, the degree of application of the supranational principle is related. The supranational principle is the principle that shifts the competences of the individual member states from the national level to the higher, transnational, decision-making level. The supranational paradigm is based on the strengthening of the transnational dimension, which translates national competences into European institutions, with the central role of stabilizing the sub-national interests of individual member states. The question, however, is whether transferring competencies to the political centre of the community creates centrality. Despite the more detailed definition of competences under the Treaty of Lisbon, we can talk about significant doubts from the Member States as to the eligibility of decision-making and the criticism of the Brussels apparatus.

Key words: *supranationality, The European Commission, criticism, Euroscepticism.*

1 INTRODUCTION

The idea of the creation of the first European grouping and the subsequent integration of the states comes from Jean Monnet, Robert Schuman and Konrad Adenauer. It was Jean Monnet who formulated the integration grouping as a community of states, building a transnational form of economic co-operation. As this idea was confirmed as successful, a new principle, a supranational (supranational) principle, was built. The idea of building an integrated society has also taken on the ideas of Robert Schuman and Konrad Adenauer, who have jointly worked on the idea of the first European grouping into reality. The first supranational organization set up to control individual Member States' commodities was the ECSC High Authority. It was an independent body that was conceived as a transnational, not taking into account the particular interests of the member countries.

The supranational principle is the principle that translates the competences of the individual Member States from the national level to the higher, transnational, decision-making level. The supranational paradigm is based on the strengthening of the transnational dimension, which translates national competences into European institutions, with the central role of stabilizing the sub-national interests of individual Member States. At present, there is a strong criticism of the European Commission. The question, however, is whether the European Commission acts in the transnational, or socio-economic interests of all Member States, or promotes the particular interests of only some Member States.

The aim of the research is to point out that the current form of the supranational principle is quite different from the original one. The European Commission has just deviated from the basic concept of supranationality, and it can be argued that the current outcomes of the Brussels bureaucracy are autocratic to a large extent.

2 EVOLUTION OF THE CONCEPT OF SUPRANATIONALITY

The supranational principle arose already at the time of the European Community becoming a supranational organization. It has emerged from the need to administer selected commodities (specifically coal and steel) under the management of a globalist organization. However,

Robert Schuman was aware of the need to develop this cooperation first in the economic sphere, creating the prerequisites for transnational cooperation in the political sphere. In this way, the management of coal and steel under the transnational control has been found, effectively eliminating the possible threats of rearmaments. As Milan Čáky remarked, *„a country that did not have its entire coal mining and steel production alone, could not have the resources and energy to produce weapons and could not prepare and lead a war on its own"* (Čáky, 2009, p. 159). The creation of the Montana Union is also considered as the emergence of a supranational principle, the essence of which is transnational cooperation, i.e. the retreat of national requirements towards transnational. Schuman, however, did not want to abolish or replace the idea of national requirements or national states. He only attempted to promote national to transnational and to make these common, i.e. transnational. Basically, it extended national to transnational, while maintaining the identity of the national state of each member of the Community. It must be bared in mind that the *„sovereignty of a supranational organization is not unlike the sovereignty of the States, but is derived from the sovereignty of the member countries"* (Sčensná, 2017). This is where a great deal of controversy arises, especially in terms of decision-making in the institutions of the European Union, specifically in the European Commission. Decisions in the EC can now be considered to be purpose-driven in favour of certain members. An example may be the current Commissioner for Migration, Home Affairs and Citizenship, Dimitris Avramopoulos, who has urged and still calls for the need to redistribute migrants from the Greek territory (quotas). Tackling quotas to redistribute migrants in EU Member States has triggered a strong criticism of the EC's red tape and at the same time sparked disputes over the legal nature of this decision. An example might be Slovakia, the Czech Republic or Hungary, who have rejected the setting of the quota mechanism. It is this case that can be a demonstration of a loss of national sovereignty, as the designated states did not agree with the mechanism in order to protect their own security, but despite this disagreement, the quota mechanism must be accepted. This is also proof of the dismissal of the European Court of Justice's action against Slovakia and Hungary (Judgement of the Court of Justice of 6 September 2017, C-643/15 – Slovakia/Council). Although Schuman said that *„all states will be mutually solidary"* (Schuman, 2002, p.34), it is possible to doubt that this idea is now embedded in the idea that solidarity should be applied to all member states as well, and not just at the moment when the major problems of the Community have to be resolved. It is these situations that have been happening more often in recent years, and this is also caused by the various challenges facing the European Union. The Brussels apparatus gradually accumulates power on its terms.

3 THE ACTIVITY OF THE EC AND ITS CURRENT CRITICSM

The European Commission was conceived as a transnational organization set up to control individual Member States' commodities. The Commission is part of the institutional structure of a transnational integration organization, striving for considerable political unity. Originally it was called ESOU's High Authority. It was an independent body based on a transnational character, not taking into account the particular interests of the Member States. Both Monnet and Schuman regarded it as an authority to shift the powers of national governments towards transnational bodies. The central task of the High Authority was *„to protect the common interests of all participating countries"* (Čáky, 2009, p. 106). However, the Schuman Plan also stated that *„The High Authority is the authoritative body to which the signatory Member States must comply within the limits of their competences"* (Čáky, 2009, p. 106). That is, he raised the position of the High Authority to strengthen authoritarianism, but at the same time contradicted himself, as he also considered solidarity to be important. Solidarity was one of the primary elements of creating a unified cluster, as it is also stated in the Declaration of 9 May 1950, *„Europe is not being created at one time or according to a single plan. It will be*

built through concrete successes that first create genuine solidarity"(Declaration of 9 May 1950).

Stability in institutional relations is important for the European Commission. When analysing relationships in an institutional nature, the guarantee of impartiality can be considered as the most important right. Impartiality has been and continues to be highlighted, although there are already many doubts on the part of the Member States. Doubts are not only about the impartial decision in the bureaucratic apparatus, but also about the independence of the individual outputs of governance. The European Commission has and still has the role of „... *joining the borders of their original national borders in the pursuit of a common policy ..."*(Moravcsic,1991, p. 25). The essence is the creation of a common policy that is impartial and independent of the individual requirements of the governments of the Member States.

The primary task of the European Commission is the exclusive right of a legislative initiative. It is precisely from this point of view that it is likened to the execution and at the same time called the so- European government. The original design of the European Commission and the High Authority has implicated in the gradual establishment of the Federation in the future, which is also evidence of the construction of other Community institutions that are very similar to the functioning of the nation state. The right of a legislative initiative has been entrusted to it by the authors of the Community concept for several reasons. First, the Commission, as an independent body, should create a neutral decision-making environment. Secondly, the independent body responsible for Community legislation has had to decide more quickly. Thirdly, as a transnational institution, it has an impartial view of the issues under consideration. Fourthly, it should represent common, i.e. transnational interests, and not create a space for the promotion of particular interests. And for the fifth time, the European Commission should absolutely not take into account the various intra-political disputes of the governments of the Member States, or the various contradictions in the social sphere in the country. For these reasons, the Commission is also referred to as the *„Community engine"* (Fiala, 2009, p. 292). On the basis of the above, it is possible to confirm that the Commission was originally conceived as an independent supranational authority, but criticism is currently underway, mainly due to its primary legislative right. In the first case, criticism is not too great, because in certain areas the Commission takes decisions that are neutral. Ultimately, the output of the Commission is beneficial to all or most of the countries. An example may be decisions on competition, with the EC supervising compliance with European Union rules on trade in goods and services. In the latter case, the European Commission is really taking swift decisions. It can quickly respond to the needs of individual Member States. The second point builds on the fourth, concerning the representation of the transnational rather than the particular interests of the Member States. At present, there is a strong criticism of the European Commission in these two points. The bottom line is that the EC has recently begun to promote the particular interests of the Member States. An example is not only the situation regarding relations with the United Kingdom, although concessions towards another member state are visible in the past century too, but over the past two years they have reached some degree of correctness. It is precisely the negotiation of a special status for the United Kingdom in 2016, which was based on economic and economic obligations, that it conceived concessions on the part of the Brussels machine and accepting the particular interest of the Member State. The situation and the subsequent Brexit triggered the butterfly wing effect (Holland, Czech Republic). The bottom line is that even minor changes can result in major changes in subsequent developments. A critical wave of criticism was felt by the European Commission just as the quota mechanism was set. The migratory crisis has put the perception of an independent organization, such as the European Commission, into a negative position.

The growing criticism of the European Commission's work is not just based on its decision. A substantial wave of criticism is also directed directly at the structural components of the

transnational institution. The European Commission, originally the High Authority was conceived as a small compact body. However, decades of development have gone into the huge dimensions of the administrative machinery. For this reason, there is a wave of criticism directed at bureaucratization, which is typical of the current European Commission. The structure of the Commission is a complex mess of official circles, from the President and Commission members through the Commissioners' Offices, the Directorate-General and the various Horizontal Offices. In addition to criticism of the bureaucratic apparatus, the criticism of the President and the Commission's members is visible (Fiala, 2009). In brief, it is necessary to map the development of the Chair's function. The original Declaration of May 9, 1950 states that *„the President shall be chosen by common agreement between Governments"* (Declaration of 9 May 1950). From the Treaty of Amsterdam, the choice of candidate had to be approved by the European Parliament. On that basis, the position of the President has been strengthened because *„the commission is fulfilling its mission as the political leader of its Vice-President"* (Article 219 of the EC Treaty as revised by the Treaty of Amsterdam). Following the reception of the Nice Treaty, the Commission President elected a qualified majority of all the Member States (Fiala, 2009). Under the Treaty of Lisbon, the President is elected by the European Council, which takes into account the results of the elections to the European Parliament. The candidate shall become the candidate who obtains a qualified majority of votes. There has also been a significant strengthening of the position of the President, who has the right under the Treaty of Lisbon to call on any Commissioner to resign, that is, *„a member of the Commission shall resign if the President so requests"* (Lisbon Treaty, Title III, 9d (6). Jean Claude Juncker, a former Luxembourg politician who has been blamed for tax evasion, is currently chairing the European Commission. Juncker is a pro-European politician who is criticized by Eurosceptics. He is criticized for being the main initiator of the promotion of the European agenda and the suppression of national interests. However, this is a general argument of the Eurosceptically-thinking part of society. At present, however, a certain degree of Eurosceptic thinking has gone to the opposite view. It is Juncker that creates a space to represent the particular interests of not only selected Member States but, in particular, certain personalities from the Member States. An example might be the negotiation of special status for the UK or the migration crisis. The European Commission under its leadership not only takes into account the particular interests of the Member States, but also the elements of centrality and autoritarianism are visible. De facto, the European Commission approaches the ability to integrate integrated and create some *„superintegration"*(Staněk, 2016, p. 47). It is only the very expression of the chairman of the last period concerning the economic sphere, when he proposes to create the position of the European finance minister who would direct the finance ministries of all the Member States, is evidence of his authoritarian promotion and supremacy of European, supranational, above national in a degenerate form. I think it is a gradual transformation of a multinational group into a federal arrangement.

Not only President of the European Commission is criticized, but also the members of the Commission, the European Commissioners. From the historical point of view, it can be remembered that the number of Commissioners has changed proportionately with the enlargement of the Community. When the Treaty of Nice introduced *„ the principle of one country - one commissioner"* (Fiala, 2009, p. 280). However, if the Commissioners are more than 27, the number of commissioners will be lower than the number of Member States. The Treaty of Lisbon stated that *„From 1 November 2014, the Commission shall consist of a number of members, including its President and High Representative of the Union for Foreign Affairs and Security Policy, which shall correspond to two-thirds of the number of Member States ..."* (Lisbon Treaty, Title III ., Article 9d, paragraph 5). The Commissioners do not represent the interests of the Member State of origin. Eurocommissioners must be

independent personalities in the governments of their Member States. They must defend common interests and act in favour of the Community. At the same time, and very importantly, they must not act on the wishes or orders of the government of a Member State. *„Members of the Commission are selected on the basis of their overall capacities and their European engagement among those who guarantee full independence"* (Lisbon Treaty, Title III, Article 9d, paragraph 3). An example may be the current Commissioner for Migration, Home Affairs and Citizenship, Dimitris Avramopoulos, who has urged and still calls for the need to redistribute migrants from the Greek territory (quotas). Noting quotas for the distribution of migrants in the EU member states has triggered a strong criticism of the EC bureaucracy and at the same time sparked disputes over the legal nature of this decision. An example might be Slovakia, the Czech Republic or Hungary, who have rejected the setting of the quota mechanism. It is this case that can be a demonstration of a loss of national sovereignty, as the designated states did not agree with the mechanism in order to protect their own security, but despite this disagreement, the quota mechanism must be accepted.

It is important for the European Commission to mention also its control. The control of the Commission lies in the hands of the European Parliament. The European Parliament may appeal to the Commission through a form of mistrust. The problem is that it is a mistrust for the Commission, but as a whole. Parliament's power to appeal to the Commission was already enshrined in the founding Treaties of the Community. There are two-thirds of all votes cast, but also the majority of Members of the European Parliament (Fiala, 2009). The Treaty of Lisbon states *„If such a proposal is adopted, the members of the Commission must collectively renounce their functions"* (Lisbon Treaty, Title III, Article 9d, paragraph 8). From the development point of view, there is an example when the European Commission was prematurely shut down. Former Luxembourg Prime Minister and later President of the European Commission, Jacques Santer, in 1999, asked the European Parliament for confidence. He did so after prevailing the financial scandal that resulted from mismanagement in the European Commission. Different financial machinations, even fraud and corruption, have been proven. Santerra's Commission resigned before resigning itself and thus resigned collectively (Fiala, 2009).

The fact that the activities of Commissioners are not controlled in day-to-day political steps, such as national ministers, can be considered as a drawback. There is no Member State control function here. This means that the individual activity of the individual Commissioners is not controlled, or that Parliament cannot voice the mistrust of the Commissioner. The problem is that, although the Commission operates in all spheres, and the Commission is mistaken in one of its activities, the mistrust of the Commission is voiced. There is a growing controversy about whether the European Commission's control mechanism is properly set and whether the review should be reviewed. The essence is more rigorous scrutiny of the work of the Commission and its commissioners in the sectors or spheres they manage. Compensation is a fact enshrined in the Treaty of Nice, under which the President of the Commission can ask one of the Commissioners to resign. However, the Treaty of Nice states *that „a member of the Commission shall withdraw if the President so requests, after obtaining the consent of the College"* (Nice Treaty, Article 11). It was a certain "brake" in the asymmetric form of management, yet it is not subject only to the personal decision of the President of the Commission. Following the entry into force of the Treaty of Lisbon, the Commission's control of the Commissioner's activities has increased, and *„the Member of the Commission waives his duties if the President so requests"* (Lisbon Treaty, Title III, Article 9d, paragraph 6). This fact can be criticized, because it is a decision of the President of the Commission that is not subject to any external control. The President shall decide on his own discretion.

At present, it is possible to criticize the inadequate mechanism of EC control also because of the activities of individual commissioners. An example may be EU trade Commissioner

Cecilia Malström, who has led negotiations on a TTIP treaty between the EU and the US. A criticism has been raised against the European Commissioner, as a result of his ignoring the interests of all the member states who have reservations about the treaty. Jonas Tallberg, who stated that the problem of the mechanism for controlling transnational institutions and the implications of the delegation of competences is inconsistently investigated (Tallberg, 2011). The author has been an important issue because the control of a multinational institution is somewhat inadequate. The degeneration of supranationality in the work of the European Commission is one of the main factors behind the strong criticism of its activities. Based on a certain wave of criticism, not only the Eurosceptic but also the Europessimism was created. Current outcomes from the European Commission, as well as the statements of its chairman, encourage the expansion of the Eurosceptic paradigm and the growth of the Eurosceptic Movement.

4 EUROSCEPTICISM

Euroscepticism is currently a phenomenon that persists for a certain period. Euroscepticism and its presence in politics are now more and more visible. The decision-making process of the European institutions has a significant share in its growth, but the various crises in which the European Union is currently located play a primary role.

However, the very concept is difficult to define, because everything that is in the European Union's opposition is generally regarded as Eurosceptic. In essence, it is a concept that refers to a certain degree of critical attitude towards the European Union, and that criticism can be divided. The emergence of Eurosceptic attitudes is also difficult to determine. Several authors, such as Taggart, Szczerbiak, Kopecký, say that the adoption of the Maastricht Treaty and the creation of the European Union can be regarded as the beginning. Nevertheless, I believe that some form of Euroscepticism arose already at the very creation of the European Coal and Steel Community. The first initiators of opposition stances are the United Kingdom, which has been sceptically about total integration from the outset. Another milestone was the sixties of the last century, when the prominent figure of the history Charles de Gaulle triggered disruptions in the Community by wanting to suspend the process of moving national competences to a transnational level. He refused supranationalism and approached rather decentralizing attitudes. The third milestone was the 70s of the 20th Century, when Britain's Prime Minister Margaret Thatcher took over the main role of Eurosceptic nature. It is precisely Thatcher who can be described as the pioneer of Euroscepticism, because her criticism of integration scattered crowds.

Euroscepticism is too broad term, and it exists in various forms. However, it is necessary to realize that the concept itself does not have one only one idea. The Eurosceptic paradigm is based on a reluctant attitude or a critique of European integration. Taggart reports the division of Euroscepticism into three groups. Firstly, it is a group that rejects the integration process, and therefore it is opposed to European integration. The second group is basically Eurosceptic against the idea that integration is the only option. This is why the representatives of the second group have the opinion that *„the EU is trying to strengthen elements that are too diverse to be compatible"* (Taagart, 1998, p.366). The third group believes that the EU is exclusive, especially with regard to social or geographical exclusion (Taagart, 1998).

All negative statements or attitudes can now be marked as Eurosceptic. Euroscepticism is divided into several typologies by different authors. For analysis in this case, it is necessary to define division according to Taggart and Szczerbiak. It is a central typology that divides Euroscepticism into *„hard and soft"* (Hynčica et al., 2016, p. 28). The authors have put both concepts in opposition; on the one hand it is a critique of all European, from principles through institutions or representatives, and so on. On the other hand, it is a Euroscepticism that criticizes the European Union only occasionally, in certain situations or on the basis of

different outcomes from the institutions. Hard Euroscepticism, according to the authors, is the biggest form of resistance to the European Union. Criticism focuses on everything that concerns the EU as a whole. It is just a tough Euroscepticism that is one of the main protagonists of criticism against the European institutions, and therefore also against the European Commission. Representatives or supporters of tough Euroscepticism are most critical to the European Commission because of its stronger status. It is the EC that is beginning to transform the supranational integration into the over-supranational. The performance of the institution can be said to exceed its limits according to hard Euroscepticism. The Commission is building an increasingly larger apparatus and is therefore similar to a bureaucratic organization, even the word centrality. On the contrary, soft Euroscepticism is also against the European Union, but it does not stand against it as sharp as Euroscepticism say. The difference, in particular, is that the Eurospectors claim urgently to step out of the European integration group, while the soft Euroscepticism do not. Their main point is simply to criticize certain decisions whether they are opposed to selected political areas. In most countries of the European Union, we find the two camps of Euroscepticism. In addition to euroscepticism, there is also europesimism in the EU. Europesimists do not focus on the current community as scepticism, but the essence of their attitudes is the development of the European Union. They focus their attention on interpreting the core values of European integration. Pessimists are sceptics, who also criticize the basic ideas and values of European integration. However, important is that Euroscepticism or soft to hard transitions itself are creating new phenomena that the EU faces in recent years. I think that division of the Euroscepticism offered by Taggart and others is already inadequate, because the European Union is changing in the 21st century, and thus changing the reasons for such thinking.

5 CONCLUSION

The European Commission as an institution whose fundamental principle is the principle of supranationality is currently criticized to a great extent. The European Commission's current activity is now diverging from the original principle and there is some degree of influence from some Member States.

The degeneration of the supranational principle in the work of the European Commission is one of the main factors behind the significant criticism of its activities. The wave of negativisation is also directed against the mechanism of the control system. It is during the inspection that there are many doubts about its effectiveness. It can therefore be argued that even inconsistent control of the brake and counterbalance system is inadequate, which raises the criticism of the European steering mechanism. For these reasons, Eurosceptic thinking is also growing. In addition to euroscepticism, there is also europesimism in the EU. Europesimists focus their attention on interpreting the core values of European integration. Current outputs from the European Commission create the development of a Eurosceptic paradigm. However, it is necessary to draw attention to the fact that the rise in Euroscepticism, the criticism of supranationalism and the work of the European Commission are closely linked to the current challenges facing the European Union. In the 21st Century, the European Union is reluctant to face more crises, but it is not just about the economic crisis, or the current, migration crisis. At present, the ideological crisis, which needs to be resolved, is yet to be resurfaced, but not just a means of representing a particular interest but a means which is democratic and agreed with all the Member States of the European Union.

Sources

1. AMSTERDAMSKÁ ZMLUVA, ktorá mení Zmluvu o Európskej únii, zmluvy o založení Európskych spoločenstiev a niektoré súvisiace akty .1997. [online].

Available at: https://www.nrsr.sk/web/Static/sk-SK/EU/Doc/amsterdamska-zmluva.pdf
2. ČÁKY, M. 2009. Európan Robert Schuman. 1.vyd. Budapešť: MIMA Music Kft, 2009.236 s. ISBN 978-963-87219-4-5.
3. DEKLARÁCIA Z 9. MÁJA 1950. [online]. Available at: https://europa.eu/european-union/about-eu/symbols/europe-day/schuman-declaration_en
4. FIALA, P., PITROVÁ, M. 2009. Evropská unie. 2. vyd. Brno: Centrum pro studium demokracie a kultury, 2009. 805 s. ISBN 9788073251802.
5. HINČICA,P. a kol. 2016. Euroskepticizmus ve střední Evropě.1.vyd. Praha: Academia, 2016. 215 s. ISBN 978-80-200-2619-4.
6. LISABONSKÁ ZMLUVA . Protokol č. 9 o úlohe národných parlamentov v Európskej únii. 2007. ISSN 1725-5236.
7. MORAVCSIK,A.1991. Negotiating the Single European Act: National interests and conventional statecraft in the European Community. 1991. In International Organization. vol.45. p. 19-56.
8. Rozhodnutie Súdneho dvora zo 6. Septembra 2017 - C-643/15 - Slovensko/Rada. Available at: http://curia.europa.eu/juris/liste.jsf?pro=&nat=or&oqp=&dates=%2524type%253Dpro%2524mode%253Don%2524on%253D2017.09.06&lg=&language=sk&jur=C%2CT%2CF&cit=none%252CC%252CCJ%252CR%252C2008E%252C%252C%252C%252C%252C%252C%252C%252C%252C%252Ctrue%252Cfalse%252Cfalse&td=%3BALL&pcs=Oor&avg=&page=1&mat=or&jge=&for=&cid=1605680.
9. SČENSNÁ, A. 2017. Právny systém Európskej únie [online]. 2017. E-polis.cz, 14. 2. 2017. [cit. 2017-06-06]. Dostupné na internete: http://www.e-polis.cz/clanek/pravny-system-europskej-unie.html. ISSN 1801-1438.
10. SCHUMAN, R. 2002. Pre Európu. Prešov: Vydavateľstvo Michala Vaška, 2002. 136s. ISBN 80-7165-402-7.
11. STANĚK,P.- IVANOVÁ, P. 2016. Európska únia na križovatke. Postrehy a inšpirujúce riešenia. 1. vyd. Bratislava: Wolters Kluwer, 2016. 184s. ISBN 978-80-8168-482-1.
12. TAGGART,P. 1998. A touchstone of disent: Euroscepticism in contemporary Western European party systems. 1998. In European Journal of Political Research. vol. 33. p.363- 388.
13. TALLBERG, J. 2011. Delegation to Supranational Institutions: Why, HOW, and with What Consequences?[online]. 2011. In West European Politics. Vol. 25. Available at: http://www.tandfonline.com/doi/abs/10.1080/713601584.
14. ZMLUVA Z NICE z 26. Februára 2001. [online]. Available at: https://www.nrsr.sk/web/Static/sk-SK/EU/Doc/zmluva-z-nice.pdf

Contact

Mgr. Monika Práznovská
Univerzita sv. Cyrila a Metoda v Trnave, Fakulta sociálnych vied
Bučianska 4/A, 917 01 Trnava
Tel: 0908 779 519, +421 33 5565 562
email: monikapraznovska11@gmail.com

MEDZINÁRODNÉ ORGANIZÁCIE A ROZVINUTÉ KRAJINY SVETA – PRÍPADOVÁ ŠTÚDIA SLOVENSKÁ REPUBLIKA

INTERNATIONAL ORGANIZATIONS AND DEVELOPED COUNTRIES OF THE WORLD – CASE STUDY SLOVAK REPUBLIC

Michaela Dénešová

Abstrakt

Predkladaná práca predstavuje výstup z diplomovej práce autorky pod vedením doc. JUDr. PhDr. Lucie Mokrej, PhD. Cieľom práce bolo zistiť, na základe čoho sú medzinárodné, ľudskoprávne dohovory, ktoré vznikli na pôde OSN, právne záväzné pre štáty, ktoré ich ratifikovali. Zároveň bolo cieľom zistiť či dochádza k ich napĺňaniu na národných úrovniach štátov – konkrétne v Slovenskej republike, ktorá bola použitá ako prípadová štúdia. Práca sa zameriava na špecifickú oblasť napĺňania medzinárodných dohovorov, ktorou je ochrana práv žien pred diskrimináciou.

Kľúčové slová: *CEDAW, OSN, Slovenská republika, implementácia, ľudské práva žien*

Abstract

The presented work represents an output from the author's master thesis *with supervision of* doc. JUDr. PhDr. Lucia Mokrá, PhD..The aim of the work was to find out, whether and according to what are the international human rights conventions, that have been created at the UN, legally binding for those states which have ratified them. At the same time, the aim was to find out whether they are being implemented at the national levels of states - specifically in the Slovak Republic, which was used as a case study. The work focuses on a specific area of implementation of international conventions, which is to protect the rights of women against discrimination.

Key words: *CEDAW, UN, Slovak Republic, implementation, human rights of women*

ÚVOD

Ľudské práva sú súčasťou fungovania a nastavení nejednej medzinárodnej organizácii. Za organizáciu, ktorá pod sebou zastrešuje medzinárodný režim ľudských práv, môžeme považovať Organizáciu spojených národov (OSN). Pri jej vytvorení išlo o reflexiu porušovania ľudských práv a chýbajúceho inštitucionálneho systému a štandardizácie ich obsahu. V prípade OSN je potrebné pochopiť postavenie, úlohy, kompetencie a význam tejto organizácie. Z partikulárneho pohľadu by sa mohlo zdať, že cez prísnejšie pravidlá a možnosť trestať určitými sankciami by bolo možné dosiahnuť efektívnejšie napĺňanie záväzkov, ku ktorým sa krajiny zaväzujú. Na druhej strane a to práve v prípade OSN je nutné akceptovať, že na také niečo nikdy nebola táto organizácia vytvorená. Je úlohou samotných štátov, ktoré do OSN vstúpili dobrovoľne a to s vedomím všetkých práv a povinností, aby prostredníctvom poctivého nasledovania vytvorených dohôd dosahovali spoločné ciele a záujmy.

Jedným z problémov fungovania OSN je záväznosť jednotlivých dokumentov, a to či už rezolúcii alebo deklarácii, a ich implementácia a presadzovanie na národnej úrovni jednotlivých štátov. V prípade Európskej únie, ako rovnako medzinárodnej organizácie, je dosahovanie napĺňanie jej legislatívy jednoduchšie. Uplatňuje sa tu " [p]rincíp prednosti alebo zásada prednostnej aplikácie úniového práva", ktorá je v kompetencii priamo sudcov na

národných súdoch. (Mokrá, 2014, s.8) Ľudskoprávne dohovory, ktoré vznikli na pôde OSN, sú však dokumenty, ku ktorým krajiny pristupujú dobrovoľne a ktoré by mali postupne viesť k zlepšovaniu situácie v oblasti ľudských práv na celom svete. Cieľom tejto práce je preto skúmať akým spôsobom bol konkrétny dohovor implementovaný v konkrétnej krajine za sledované obdobie.

1 KONTEXT A METODOLÓGIA PRÁCE

1.1 Kontext práce

Podmienky v rozvinutých krajinách sveta ako napríklad fungujúca demokratická vláda, vláda práva či životná úroveň obyvateľov, umožňujú rozvinutým krajinám rozvíjať sa v ďalších úrovniach a byť tak príkladom pre ostatných. Týmto spôsobom môžu štáty jednotlivo prispievať k celkovému zlepšeniu situácie v oblastiach ako sú práve ľudské práva. Postupom času vznikla potreba nielen ochraňovať ale taktiež vytvárať špecifické práva pre konkrétne skupiny osôb, ktoré sú senzitívnejšie na a porušovanie práv. Sú to skupiny osôb, ktoré sú slabšie, zraniteľnejšie alebo boli a stále sú z určitého dôvodu vystavované väčšiemu riziku porušovania ich práv. (Icelandic Human Rights Centre, n.d,)

V súčasnosti je možné pozorovať všeobecný pokrok v oblasti ochrany práv žien v rámci rozvinutých krajín sveta. Túto zlepšujúcu sa tendenciu nám ukazuje predovšetkým Index rodovej rovnosti, ktorého merania prebiehali v rámci štátov Európskej únie od roku 2002 do roku 2012, a ktorý bol vyhodnotený Európskym inštitútom rodovej rovnosti za rôzne oblasti ako je napríklad zdravie, vzdelávanie, pracovný život alebo násilie zo strany partnera. Výsledky ukazujú, že od roku 2005 (51.3) do roku 2012 (59.2) došlo k miernemu zlepšeniu tohto indexu rodovej rovnosti. Avšak Slovenská republika (SR) patrí k tým krajinám, kde, naopak, došlo k zhoršeniu tohto indexu z 41.5 na 36.5. (European Institute for Gender Equality, 2015. s. 75)

1.2 Metodológia

Za jeden z hlavných cieľov tejto práce som si stanovila zistiť či dochádza k implementácii ľudskoprávnych dohovorov, ktoré vznikli na pôde OSN, na národných úrovniach členských štátov a to konkrétne na Slovenskú republiku. Bolo potrebné určiť z akých dôvodov by predmetné dokumenty mali mať vplyv a dosah na SR, prečo tieto dokumenty majú malý dosah a taktiež akým spôsobom SR narába s konkrétnou problematikou reprodukčných práv. Z tohto dôvodu boli stanovené nasledujúce výskumné otázky:

Prečo sú záväzky plynúce z Dohovoru o odstránení všetkých foriem diskriminácie žien záväzné pre Slovenskú republiku? Do akej miery dochádza k implementácii medzinárodných záväzkov plynúcich z častí tohto dohovoru na Slovensku? Aké kroky podnikla SR v predmetných oblastiach?

Otázky boli zodpovedané prostredníctvom kvalitatívnej analýzy dostupnej literatúry v oblasti, jednotlivých, národných zákonov a taktiež bola analýza doplnená o rozhovory so významnými aktérmi/ aktérkami v oblasti.[1] Ako východiskový dokument bol vybraný Dohovor o odstraňovaní všetkých foriem diskriminácie žien (CEDAW Dohovor), v rámci ktorého som sa zamerala na otázku reprodukčných práv žien. Za východiskový bod analýzy som si stanovila druhú, tretiu a štvrtú periodickú správu SR o plnení záväzkov vyplývajúcich z CEDAW Dohovoru. Sledované obdobie bolo do roku 2015, kedy sa SR opäť ocitla pred

[1] Janku Debrecéniovú, Adrianu Mesochoritisovú, Šarlotu Pufflerovú (zástupkyne MVO na Slovensku), Oľgu Pietruchovú, ktorej odpovede dopĺňala Ľubica Rozborová (Odbor rodovej rovnosti a rovnosti príležitostí MPSVaR) a Monika Kršková, Zuzana Pavlíčková, ktoré pôsobili v čase rozhovorov v SNSĽP.

výborom CEDAW Dohovoru so svojou piatou a šiestou periodickou správou. Táto spojená správa sa rovnako stala zdrojom informácii o aktivite štátu. Prostredníctvom triangulácie implementácie na teoretickej rovine, praktickej rovine a rozhovorov som sa snažila priniesť čo najhlbší a najdetailnejší pohľad na danú problematiku.

2 MEDZINÁRODNÉ ZMLUVY V KONTEXTE SLOVENSKEJ REPUBLIKY

2.1 Medzinárodné zmluvy ako zdroj medzinárodného práva, ľudskoprávne zmluvy v kontexte OSN a právna úprava SR dotýkajúca sa medzinárodných ľudskoprávnych zmlúv

Medzinárodné právo predstavuje systém, ktorý bol vytvorený vo zvykovom práve a to prostredníctvom vytvárania práva, založeného napríklad na zmluvách. (Harris, 2010, s.2) Vo všeobecnosti nám medzinárodné právo upravuje a vytvára systém v interakcii medzi štátmi, jednotlivcami ale aj organizáciami v medzinárodnom priestore. Tieto pravidlá boli štátmi navzájom uznané a teda sa stali záväzné pre ich fungovanie. Medzinárodné právo rozlišujeme na právo verejné a súkromné. Pre účely tejto práce je dôležité medzinárodné právo verejné, ktoré "riadi vzťahy medzi štátmi a medzinárodnými organizáciami, ktoré sa zaoberajú oblasťami, ako sú ľudské práva, zmluvné právo, morské právo, medzinárodné trestné právo a medzinárodné humanitárne právo.“ (europa.eu, 2015) Sú to preto práve suverénne štáty, ktoré predstavujú základné subjekty medzinárodného práva. Štáty rovnako ako jediné nesú schopnosť vytvárať normy medzinárodného práva prostredníctvom svojej suverénnej moci ako aj možnosť stať sa členom či vytvoriť medzinárodnú organizáciu. Štát je preto ako jediný považovaný za „plnohodnotný subjekt medzinárodného práva“. (Vršanský, Valuch a kol., 2012, s. 200) V Článku 38 Štatútu medzinárodného súdneho dvora sa ako pramene pre rozhodovanie uvádzajú, okrem iného: „a) medzinárodné zmluvy, či už všeobecné alebo osobité, ktoré ustanovujú pravidlá výslovne uznané štátmi v spore;[...]“ (United Nations - Information Centre Prague, n.d.) Tieto pramene boli všeobecne prijaté a sú využívané aj súdmi a teda sa často považujú za pramene medzinárodného práva. (Van Dervort, 1998, s.70)

Pre kontext tejto práce sú práve zmluvy dôležitým zdrojom medzinárodného práva. Aj napriek tomu, že sa ľudskoprávne zmluvy dotýkajú oblasti ľudských práv, ich úprava sa v rámci medzinárodného práva veľmi neodlišuje od ostatných medzinárodných zmlúv. Medzinárodná zmluva na základe Viedenského dohovoru o zmluvnom práve (VDZP) z roku 1969 (v platnosti od roku 1980) je “medzinárodná dohoda uzavretá medzi štátmi v písomnej podobe, spravujúca sa medzinárodným právom, spísaná v jedinej alebo vo dvoch alebo viacerých súvisiacich listinách, nech je jej názov akýkoľvek.“ (Sepeši, 2010) Práve VDZP sa stal kodifikujúcim dokumentom dovtedy existujúceho zvykového práva a používa sa ako základ pre úpravu jednotlivých oblastí, ktoré sa týkajú medzinárodných zmlúv ako napríklad platnosť zmlúv, dodržiavanie či výklad zmlúv a podobne. (Icelandic Human Rights Centre, n.d.- A) VDZP taktiež poukazuje na zásadu *pacta sunt servanda* (Sepeši, 2010, článok 26), prostredníctvom ktorej už vopred štáty varuje pred ich povinnosťou napĺňať záväzky vytvorené medzinárodnou zmluvou. Proces prijatia zmluvy prebieha prostredníctvom hlasovania o obsahu zmluvy. Prijatie zmluvy neznamená automaticky aj záväznosť zmluvy pre jednotlivé zmluvné strany. VDZP bola stanovená dvojtretinová väčšina na prijatie textu zmluvy, ktorý sa následne posúva na autentifikáciu. (Mráz, Poredoš, Vršanský, 2003, ss. 226-227) Po vyjadrení súhlasu byť viazaný zmluvou sa pre štát stáva medzinárodná zmluva záväzná a to ako v rámci práv tak aj povinností, ktoré z nej plynú. VDZP vo svojom článku 11 upravuje aj spôsob ako je možné štát zaviazať voči danej zmluve. (Sepeši, 2010) Spôsob, akým sa štát zaviaže k medzinárodnej zmluve, je výsledkom vzájomného konsenzu zmluvných strán a toho, ako si to stanovili v konkrétnom dokumente. Vstup do platnosti, dodržiavanie alebo porušenie zmluvy ako aj jej výklad, to všetko je možné nájsť vo VDZP. Aj

preto sa často tento dokument považuje za zmluvu o zmluvách, ktorá pomáha pri uplatňovaní medzinárodného práva v praxi..
Od roku 1945 je to práve oblasť ľudských práv, ktorá zaznamenala značný rozvoj v medzinárodnom práve. Jeden zo základných zdrojov medzinárodného práva sú zmluvy a to platí aj v prípade oblasti ľudských práv. V tomto prípade však netreba zabúdať ani na tzv. medzinárodné zvykové právo, prostredníctvom ktorého oblasť ľudských práv dosahuje významný rozvoj. (Harris, 2010, s. 536-537)
Rozvoj ľudských práv sa stal citeľný práve pre oblasť zvykového práva. V oblasti ľudských práv, prostredníctvom tzv. *opinio juris*, boli vytvorené pravidlá, ktoré v dnešnej dobe považujeme za základ ochrany ľudských práv ako napríklad zákaz otroctva, genocídy či rasovej diskriminácie, ktoré sú platné pre celú medzinárodnú spoločnosť a to bez ohľadu, či jednotlivé štáty pristúpili ku konkrétnym zmluvám, ktoré sa zaoberajú danou oblasťou. Okrem iného nadobudli aj status *jus cogens* (Cassese, 2005, s. 394), čo znamená, že v akejsi hierarchii zdrojov práva získali špeciálne postavenie. Ak nejaké všeobecné pravidlo získa postavenie *jus cogens,* znamená to, že má prednosť pred všetkými ostatnými zdrojmi práva a dokonca v prípade uzatvorenia medzinárodnej zmluvy, ktorá by bola v rozpore s takýmto všeobecne platným pravidlom, sa zmluva stáva automaticky neplatnou. (Cassese, 2005, s. 199)
Prijímanie medzinárodných ľudskoprávnych zmlúv na pôde OSN sa vo veľkej miere neodlišuje od prijímania iných medzinárodných zmlúv. Hlavnú kompetenciu v tejto oblasti má Valné zhromaždenie OSN, kde prostredníctvom hlasovania v pléne dochádza k prijímaniu rezolúcii. (Pániková, Pavlíčková, 2014, s. 34) Do dnešnej doby bolo na pôde OSN vytvorených deväť dokumentov[2], ktoré v prípade ratifikácie nadobúdajú pre zmluvnú stranu právne záväzný charakter. (Canadian Teachers' Federation, 2015) Tieto dokumenty boli prijaté Valným zhromaždením v priebehu rokov 1965 až 2006 a otvorené k ratifikácii. Pri ratifikácii dohovoru štátom by malo následne dochádzať k implementácii jeho obsahu na národnej úrovni. Tu je predovšetkým potrebná politická vôľa presadzovať a zavádzať do národného právneho poriadku také opatrenia, ktoré v konečnej podobe naplnia záväzky vyjadrené v medzinárodnom dohovore. Tieto dohovory väčšinou neupravujú to, akým spôsobom majú toto štáty urobiť a nechávajú to na ich rozhodnutie, štáty majú zväčša voľnú ruku v tom, ako budú svoje záväzky napĺňať v praxi. To, že štát prijme nové zákony nemusí automaticky znamenať aj naplnenie všetkých záväzkov. Je to však predovšetkým zavedenie nových zákonov v súlade s danou medzinárodnou zmluvou, ktoré vytvárajú možnosť následnej vymožiteľnosti práv na národnej úrovni prostredníctvom národných súdov. (Icelandic Human Rights Cenre, n.d. – B)
Na kontrolu týchto procesov implementácie boli k hlavným dohovorom o ochrane ľudských práv vytvorené špecifické výbory, ktoré majú monitorovanie samotnej implementácie v kompetencii. (Pániková, Pavlíčková, 2014, s. 45-49) V prípade nedodržiavania záväzkov plynúcich z konkrétnej medzinárodnej ľudskoprávnej zmluvy, prakticky neexistuje priamy spôsob, ako štáty donútiť k dodržiavaniu týchto zmlúv. Najčastejšie mechanizmy sú práve monitoring na základe správ od samotného štátu a následné odporúčania alebo prešetrenie v prípade sťažností jednotlivcov. (ESCR-Net, n.d.)
SR je ako suverénny štát súčasťou medzinárodného priestoru a taktiež subjekt medzinárodného práva. V národnom poriadku došlo k uzákoneniu prednosti medzinárodného práva pred zákonmi na Slovensku v podobe dvoch článkov Ústavy Slovenskej republiky, ktoré túto prednosť upravujú. Prvým z nich je článok 7 odsek 5 a druhým je článok 154c. V prípade prvej úpravy, článok 7 odsek 5 "priznáva medzinárodným zmluvám prednosť pred zákonmi Slovenskej republiky. Medzinárodným zmluvám sa nepriznáva prednosť pred

[2] Zoznam dohovorov v anglickom jazyku dostupný online na: http://sttpcanada.ctf-fce.ca/rights-responsibilities/understanding/

Ústavou SR.“ (Drgonec, 2007, s. 130) Nie všetky medzinárodné zmluvy majú prednosť pred zákonmi. Jednou skupinou, ktorá prednosť má, sú medzinárodné zmluvy dotýkajúce sa oblasti ľudských práv a základných slobôd. Netreba taktiež zabúdať na to, že existujú podmienky, ktoré musia byť splnené na to, aby bol nadobudnutý účinok článku 7 odseku 5. Tieto tri podmienky sú, že sa krajina musí stať zmluvnou stranou zmluvy, musí ju ratifikovať a zmluva musí byť vyhlásená podľa toho, ako to určuje zákon. Zároveň je nutný súhlas Národnej rady Slovenskej republiky s predmetnou zmluvou, o čom hovorí článok 7 odsek 4 ústavy. (Drgonec, 2007, s. 130-131)
V prípade článku 154c hovoríme o právnej úprave, ktorá je rozdelená na dve časti a to odsek 1, zaoberajúci sa špeciálne úpravou medzinárodných zmlúv o ľudských právach, a odsek 2, ktorý sa zameriava na iné medzinárodné zmluvy. Na účely tejto práce je relevantný prvý odsek článku 154c, ktorý hovorí, že nie vždy majú medzinárodné zmluvy prednosť pred zákonmi Slovenskej republiky a táto prednosť nastáva len vtedy, ak poskytujú väčší rozsah práv v porovnaní s zákonmi SR. “Táto podmienka sa splní vtedy, ak medzinárodná zmluva priznáva také právo, ktoré zákony SR vôbec nepriznávajú, ako aj vtedy, ak medzinárodná zmluva priznáva právo, ktoré je aj predmetom úpravy zákona SR, ale podmienky uplatnenia práva sú pre oprávnenú osobu výhodnejšie v medzinárodnom dohovore, než v zákone SR.“ (Drgonec, 2007, s. 1149) Ak bola zmluva ratifikovaná aj vyhlásená takým spôsobom, ktorý určuje zákon pred 1. júlom 2001, dochádza k aplikácii článku 154c, v inom prípade, po 1. júli 2001, sa aplikuje článok 7 odsek 5. (Debrecéniová, eds., 2014, s. 32) Za dôležité Drgonec (2007, s. 131) tiež považuje aj nálezy a názory Ústavného súdu SR, kde sa odkazuje napríklad aj na princíp *pacta sunt servanda*, či dôležitosť medzinárodných ľudskoprávnych dohovorov a ich prednosť pred zákonmi no nie pred ústavou (napríklad ÚS 5/02 z 21. mája 2003, ÚS 49/01 z 19. decembra 2001).

2.3 CEDAW Dohovor a Slovenská republika

CEDAW Dohovor bol prijatý Valným zhromaždením v roku 1979 ako rezolúcia A/res/34/180 a vstúpil do platnosti v roku 1981 ako dovtedy najrýchlejšie ratifikovaný dohovor. (United Nations, 2000-2009) Na základe delenia medzinárodných zmlúv podľa Mráza, Poredoša a Vršanského, (2003, ss. 208-213) je CEDAW Dohovor univerzálnou, hospodárskou, medzinárodnou zmluvou, ktorá je vyhotovená v písomnej forme a je verejne prístupná, je to otvorená zmluva, ktorá umožňuje pristúpenie ďalších štátov, právotvorná s dlhodobým účinkom. Po Medzinárodnom dohovore o odstránení všetkých foriem rasovej diskriminácie bol CEDAW Dohovor druhým, ktorý sa priamo venoval oblasti diskriminácie a ktorý ju dal do kontextu s diskriminácia na základe pohlavia. (Edwards, 2011, s. 154)
Jedným z najväčších prínosov CEDAW Dohovoru bolo vytvorenie definície diskriminácie v konkrétnej oblasti. Tú môžeme nájsť hneď v prvom článku Dohovoru. Ďalším významným prvkom CEDAW Dohovoru je aj fakt, že neukladá povinnosti len štátom, aby sa zdržali takýchto foriem diskriminácie ale zároveň ich vedie k tomu, aby na národnej úrovni vytvárali také opatrenia, ktoré zabránia takejto diskriminácii aj zo strany iných účastníkov. Nespomína len národné poriadky ale taktiež zabezpečenie toho, aby rôzne organizácie či firmy nediskriminovali ženy. Prináša možnosť dočasných opatrení, ktorých úlohou je prekonať nerovnosti v spoločnosti a tak docieliť zavedenie rovnosti do praxe. Dotýka sa všetkých oblastí ako je oblasť súkromného, rodinného života, verejného života ako aj života žien a ich nevýhody na trhu práce ako aj upravuje vzťahy medzi manželmi ako aj ich vzťahy voči možným potomkom. (D’Cunha, 2005, ss. 4-7)
Slovenská republika ako súčasť bývalej Československej republiky bol jeden zo štátov, ktoré sa stali členmi OSN už pri jej vzniku v októbri 1945. (Ministerstvo zahraničných vecí a európskych záležitostí Slovenskej republiky, 2009-2016) SR sa stala samostatným členom po rozdelení Československa v roku 1993, no už predtým sa, vo Vyhlásení Národnej rady SR,

ktoré bolo schválené uznesením č. 86/1992, vyjadrila, že má záujem stať sa riadnym členom OSN a potvrdila všetky svoje záväzky. Nakoľko nie je možná sukcesia v prípade Charty OSN, ktorá zakladá členstvo v OSN, každý štát, ktorý sa snaží o vstúpenie do medzinárodného spoločenstva si musí podať žiadosť o takéto prijatie a podrobiť sa prijímajúcemu konaniu, ktoré má daná organizácia. Po podaní oficiálnych žiadostí sa Slovensko stalo už 19. januára 1993 180. členským štátom OSN a do mája bolo uznané 99 štátmi. (Skaloš, 2012)
SR prijala záväzky vyplývajúce z CEDAW Dohovoru, stala sa zmluvnou stranou dohovoru na základe sukcesie a stal sa pre ňu platný 27. júna 1993. (Možnosť voľby, 2012) Pri 1. správe Slovensko dostalo 14 odporúčaní (United Nations - A/53/38/Rev.1, 1998), pri spojenej 2., 3. a 4. periodickej správe to už bolo 16 priamych odporúčaní a niekoľko odporúčaní založených na už existujúcich všeobecných odporúčaniach (UN CEDAW Committee - CEDAW/C/SVK/CO/4, 2008, ss. 2-10) a viac ako 40 odporúčaní pri 5. a 6. periodickej správe. (UN CEDAW Committee -CEDAW/C/SVK/CO/5-6, 2015, ss. 3-13) Výbor v týchto svojich záverečných zisteniach nie len odporúčal konkrétne kroky a aktivity, ale taktiež urgoval SR v napĺňaní ďalších povinností, ktoré jej prislúchajú. Napriek tomu, že sa SR veľmi často vo svojich slovách odhodláva k plneniu jednotlivých záväzkov, môžeme vidieť prudký nárast v počte odporúčaní zo strany CEDAW Výboru za obdobie od roku 2008 po rok 2014, kedy bola predkladaná ďalšia, spojená správa.

3. PRÍPADOVÁ ŠTÚDIA – SLOVENSKÁ REPUBLIKA

3.1 Legislatívna, teoretická a praktická rovina implementácie záväzkov vyplývajúcich z CEDAW Dohovoru v oblasti reprodukčných práv

Téme reprodukčných práv sa výbor v roku 2008 venoval predovšetkým kvôli výhrade vo svedomí zdravotníckeho personálu, ktorá by mohla viesť k problému uplatňovať si svoje reprodukčné práva. Tiež sa venoval zabezpečeniu cenovo dostupnej, zdravotnej starostlivosti, vrátane oblasti týkajúcej sa reprodukcie, ako aj dostupnosti informácií pre ženy a mužov týkajúcich sa plánovaného rodičovstva. (UN CEDAW Committee - CEDAW/C/SVK/CO/4, 2008, s. 7- 9) V prípade reprodukčných práv hovoríme o viacerých rovinách uplatňovania týchto práv. V prvom rade ide o prístup k informáciám v oblasti reprodukčných práv a antikoncepcii, ktorá by mohla predchádzať neželanému tehotenstvu. Ďalšou rovinou je prístup k interrupciám.
Celoplošnú dostupnosť informácií dotýkajúcich sa reprodukcie by bolo možné zabezpečiť prostredníctvom vzdelávania na školách. Téma sexuálnej výchovy bola otvorená aj v rámci sledovaného obdobia. Do dnešnej doby však nedošlo zo strany legislatívy k vytvoreniu samostatného predmetu na školách, ktorý by sa venoval tejto téme. Téma sexuálnej výchovy bola otvorená v roku 2011, kedy vtedajší minister práce, sociálnych vecí a rodiny cez svoju hovorkyňu povedal, že nevidí dôvod na opätovné riešenie tejto témy nakoľko "[s]exuálna výchova je dnes zapracovaná do štátneho vzdelávacieho programu v rámci predmetov ako prvouka, biológia, etika, a najmä do inovovaných učebných osnov Výchovy k manželstvu a rodičovstvu." (Žiaková, in: Sudor, 2011) Pietruchová (rozhovor, 30. marec 2016) upozornila, *„že je tu aj nejaký odpor voči sexuálnej výchove, nejde len o to plánované rodičovstvo, ale narastajú aj prípady pohlavne prenosných chorôb."* Zároveň dodala, že hoci oficiálne existujú tieto témy ako súčasť iných predmetov, no to, či sa to prejavilo na školách je ťažké posúdiť.
Ďalšou úrovňou je prístup k antikoncepcii, kde naďalej pretrváva problém vysokých finančných nákladov. (Centre for Reproductive Rights, Možnosť voľby, Občan, demokracia a zodpovednosť, 2011, s. 27) V sledovanom období došlo v tejto oblasti k negatívnym zmenám na legislatívnej úrovni. Na základe tzv. interrupčného zákona č. 73/1986 Zb. Zákon Slovenskej národnej rady, ktorý prešiel zmenou v roku 1991 (zákon č. 419/1991 Zb.), malo

dochádzať k poskytovaniu prostriedkov, ktoré boli na lekársky predpis, a ktoré by zabraňovali neželanému tehotenstvu, bezplatne. V roku 2011 bol prijatý zákon č. 363/2011 Z. z., ktorý vo svojom §16, ods. 4 e) – 1. vylučuje zaradiť antikoncepciu do kategorizovaných liekov. Debrecéniová (rozhovor, 7. marec 2016) na tento fakt reagovala, že "v poslednom období, najmä čo sa týka reprodukčných práv, tu bolo niekoľko krokov vzad. Zdôrazňujem to preto, že v medzinárodnom práve platí zásada retrogresívnych opatrení, čo je koncept,[...] ktorý spočíva v tom, že ak už je niečo ako štandard v napĺňaní práva, tak vláda nemôže ísť späť a zhoršiť situáciu a aplikáciu, ktorá už existuje." Rovnaký problém podľa Debrecéniovej nastal aj v oblasti prístupu k interrupciám a to prostredníctvom zákona č. 345/2009 Z. z., ktorý zaviedol svojím §6b povinné poučenie, s následným informovaným súhlasom a lehotou 48 hodín[3], ktorá musí od poučenia uplynúť, aby mohla byť interrupcia vykonaná na žiadosť ženy. Všetky tieto prvky, vrátane ceny interrupcie "porušuje ústavný princíp právneho štátu, ktorý sa neviaže na nijakú ideológiu ani náboženstvo, ohrozuje právo žien slobodne sa rozhodnúť o pokračovaní svojho tehotenstva a vystavuje ich riziku nezákonných interrupcií vykonaných v nebezpečných podmienkach." (Lamačková, Pietruchová, in: Mesochoritisová, Zezulová, eds., 2011) Tieto opatrenia, ktoré výrazne zhoršujú slobodný prístup žien k antikoncepcii prípadne interrupcii na vlastnú žiadosť, majú retrogresívny charakter, čo je v medzinárodnom práve zakázané a predstavuje krok vzad v dosahovaní medzinárodných štandardov. (Debrecéniová, rozhovor, 7. marec 2016)

Posledným legislatívnym prvkom, ktorý kritizoval CEDAW Výbor, a ktorý môže predstavovať bariéru v prístupe k reprodukčným právam (antikoncepcia, interrupcia), je výhrada vo svedomí. Výhrada vo svedomí je upravená v legislatíve dva krát, a to v zákone č. 576/2004 Z. z. o poskytovaní zdravotnej starostlivosti a v zákone č. 578/2004 Z. z. o poskytovateľoch zdravotnej starostlivosti. V prvom prípade ide o §12, odsek 2c a odsek 3, v druhom prípade výhradu vo svedomí obsahuje príloha č. 4 zákona 578/2004 Z. z., ktorou je Etický kódex zdravotníckeho pracovníka, bod 3. Aj tieto zákony môžu mať negatívne dopady na uplatňovanie si reprodukčných práv, vyplývajúcich z CEDAW Dohovoru. (Lamačková, eds., 2008; Lamačková, Pietruchová in: Mesochoritisová, Zezulová, eds., 2011)

Pozitívnym krokom, hoci nie v legislatívnej, no v teoretickej rovine, bolo vytvorenie *Národného programu starostlivosti o ženy, bezpečné materstvo a reprodukčné zdravie* (2009), ktorý obsahuje viacero úloh dotýkajúcich sa sexuálnych a reprodukčných práv až do roku 2014. V tomto dokumente môžeme nájsť priamy odkaz na implementáciu CEDAW Dohovoru, avšak len v oblasti násilia páchaného na ženách. Tento program však nakoniec nebol prijatý (Ministerstvo spravodlivosti SR - Portál právnych predpisov, 2009)

Sexuálne a reprodukčné práva obsahujú právo rozhodovať o svojom zdraví, mať dostatok informácii v danej problematike, rozhodnúť sa o tom, či človek vstúpi alebo nevstúpi do manželstva, mať prístup k plánovaniu rodičovstva prostredníctvom antikoncepcie či interrupcie, mať prístup k starostlivosti v materstve a podobne. (Amnesty International, 2014) Z tohto hľadiska môžeme konštatovať, že aj napriek legislatívnym prekážkam a na to nadväzujúcim ekonomickým prekážkam je stále na SR možné uplatňovať si tieto práva v teoretickej rovine. Odhliadnuc od mnohých bariér, ženy majú prístup k antikoncepcii aj interrupcii, avšak tieto práva existovali v legislatívnej rovine ešte predtým (vytvorené zákonom 73/1986 Zb. Zákon Slovenskej národnej rady v roku 1986) než Slovensko v rámci Československej socialistickej republiky ratifikovalo CEDAW Dohovor (1987).

Súčasný vývoj v tejto oblasti bol vnímaný negatívne aj v rámci rozhovorov, so skutočne malými pozitívami, ktoré však nemožno vnímať ako aktívne napĺňanie záväzkov voči

[3] Obsah poučenia ako aj lehota 48 bol skritizovaný mimovládnymi organizáciami z dôvodu podsúvania nepravdivých informácii, ktoré nekorešpondujú s medzinárodnými poznatkami z oblasti psychológie či medicíny a nejasnosti z dôvodu nejasného začiatku plynutia lehoty. (Možnosť voľby, 2009, http://moznostvolby.sk/zhrnutie-najzavaznejsich-problemov-navrhu-novely/)

CEDAW Dohovoru. Na tento stav upozornila aj Pietruchová (rozhovor, 30. marec 2016) slovami: "V celej tejto oblasti nastal taký „backlash"."
Identifikácia dobrej, prípadne zlej praxe je zložitejší proces, ktorý si vyžaduje dlhodobejšie pozorovanie. Za prax som si určila akúkoľvek aktivitu alebo činnosť, ktorá nezostáva len v teoretickej rovine, ale odzrkadľuje sa aj v praxi, či má vplyv na praktický život žien. Medzi vyhľadávané aktivity tejto oblasti som sa rozhodla zaradiť monitoringy v oblasti, priame aktivity projektov, kampane, aktivity zložiek štátu v danej téme, aktivity iných štátnych inštitúcii podobne.
Nakoľko neexistuje samostatný predmet na školách, ktorý by sa venoval sexuálnej výchove, je ťažké povedať, aké informácie a v akom množstve sú skutočne odovzdávané študentkám a študentom v rámci bežného vzdelávania. Za prax v oblasti reprodukčných práv zo strany štátu, pokiaľ ide o vzdelávanie, môžeme taktiež považovať aktivity Úradu verejného zdravotníctva SR, ktorý sa v rámci plnenia svojich úloh venoval aj osobitným prednáškam či inému vzdelávaniu v danej problematike. Napríklad v rámci úlohy *Populačná stratégia-aktivity pri príležitosti významných dní s osobitným zameraním na témy odporúčané SZO* bolo vykonaných v roku 2010 viacero prednášok a besied týkajúcich sa tém sexuálnej výchovy. (Úrad verejného zdravotníctva, júl 2010) a v roku 2011 malo byť vykonaných 15 prednášok na rôznych základných školách dotýkajúcich sa opäť tém sexuálnej výchovy. (Úrad verejného zdravotníctva, 2012) Tieto vzdelávacie aktivity však nie sú vykonávané celoplošne, ich vykonanie je na báze objednávky danej prednášky. (RÚVZ Nitra, 2012; RÚVZ Levice, n.d.) Rovnako je nejasný aj celkový obsah týchto prednášok a aktivít, takže nebolo možné posúdiť aké informácie sa dostávajú k žiakom a žiačkam.
Antikoncepcia na účely zabráneniu otehotnenia mala byť hradená zo zdravotného poistenia. K takejto praxi však na SR ani do roku 2011, kedy sa zmenila legislatíva týkajúca sa hradenia antikoncepcie, nedochádzalo. (Center for Reproductive Rights, Občan, demokracia a zodpovednosť, Možnosť voľby, 2011) Ako pozitívum vidíme, že preventívna, gynekologická prehliadka je hradená z verejného, zdravotného poistenia pre ženy od 18 rokov jedenkrát ročne. Súčasťou tejto prehliadky by malo byť aj poradenstvo v oblasti antikoncepcie. (Zákon č. 577/2004 Z.z.) Cena antikoncepcie sa ukázala ako najväčší problém pre ženy, predovšetkým v mladšom veku, kedy ešte nepracujú. V prípade, že nemajú podporu zo strany rodičov, je pre nich problém zaobstarať si antikoncepciu podľa vlastného výberu. Rovnakému problému však čelia aj ženy vo vyššom veku, pochádzajúce zo sociálne slabších pomerov alebo ženy, žijúce v násilných vzťahoch. (Centre for Reproductive Rights, Občan, demokracia a zodpovednosť, Možnosť voľby, 2011, ss. 30-31)
V roku 2015 v rámci svojich doplňujúcich otázok žiadal CEDAW Výbor od SR vysvetlenie toho, ako zabezpečuje ochranu žien, ktorým by práve výhrada vo svedomí zdravotníckeho personálu mohla ovplyvniť prístup k interrupcii alebo iným službám týkajúcich sa reprodukčných práv. (UN CEDAW Committee, marec 2015 - CEDAW/C/SVK/Q/5-6, s. 4) Podľa odpovedí SR je výhrada vo svedomí téma, ktorá bola v sledovanom období diskutovanou. Vníma však tento problém ako stabilizovaný, nakoľko existuje dostatok zariadení v každom regióne, kde je tento zákrok možné podstúpiť. (UN CEDAW Committee, 2015 - CEDAW/C/SVK/Q/5-6/Add.1, s. 20) Problém s poskytovaním interrupcie na žiadosť nastal v roku 2010 napríklad na východnom Slovensku, kde sa nachádzalo v tej dobe viacero nemocníc, ktoré interrupcie neposkytovali z dôvodu výhrady vo svedomí. To pre ženy napríklad z Bardejova znamenalo, že museli za takouto službou cestovať. (Čorňáková, 2011) Na začiatku roka 2011 neposkytovalo interrupciu viac než 50% nemocníc, ktoré boli v tom čase štátne. V tomto období sa k nim pridala aj Univerzitná nemocnica v Bratislave (Kopcsayová, 2011), čo mohlo v praxi znamenať problém s uplatňovaním si svojich práv pre ženy v reprodukčnom veku, ktoré v tomto období bývali v Bratislave. Do úvahy pripadali neštátne zariadenia či súkromné kliniky, kde je však cena za takýto zákrok vyššia, čím pre

ženy v praxi vznikla ešte väčšia finančná bariéra. (Kopcsayová, 2011- A) V prípade lekárni SR, vo svojich odpovediach na doplňujúce otázky pre CEDAW Výbor, argumentovala tým, že len 18 lekární, z celkového počtu 1400 na Slovensku, je hlásených ako uplatňujúce si výhradu svedomia. (UN CEDAW Committee 2015 - CEDAW/C/SVK/Q/5-6/Add.1, s. 20) Existencia problému uplatniť si svoje práva ženami však zisťovaná nebola, pričom minimálne dve[4] z lekární, uvedené v zozname uplatňujúcich si výhradu svedomia (Kormidlo.sk, n.d.) sú zároveň jedinými lekárňami, ktoré sa v danej obci nachádzajú.
Z týchto zistení vyplýva, že implementácia záväzkov z oblasti reprodukčných práv do praxe je na SR veľmi zlá, čo potvrdila aj Debrecéniová (rozhovor, 7. marec 2016). Podľa nej v tejto oblasti implementácia a presadzovanie v praxi nie je. Najčastejším problémom je z jej pohľadu stereotypné vnímanie tejto témy a celkového postavenia ženy v spoločnosti.

Záver

Medzinárodné ľudskoprávne dohovory sú právne záväzné. Predstavujú typ medzinárodných zmlúv, ku ktorým štáty pristupujú slobodne a v prípade ratifikácie sa stávajú ich zmluvnými stranami. CEDAW Dohovor je medzinárodnou zmluvou, ku ktorej majú štáty právo slobodne pristúpiť a rovnako ju aj vypovedať. V prípade Slovenskej republiky má o to dominantnejšie postavenie, že predstavuje medzinárodnú ľudskoprávnu zmluvu, ktorá má prednosť pred zákonmi Slovenskej republiky na základe samotnej ústavy krajiny za predpokladu, že poskytuje väčšiu ochranu práv ako samotné zákony krajiny.
V prípade implementácie Dohovoru v oblasti reprodukčných práv môžeme hovoriť o výraznom zlyhaní v rámci sledovaného obdobia. Do roku 2011 mala byť na základe legislatívy hradená antikoncepcia, no v praxi k tomu nedochádzalo. Od roku 2011 došlo k silným retrogresívnym opatreniam ako v oblasti antikoncepcie tak aj v oblasti interrupcie. Takýto krok je v medzinárodnom práve zakázaný. Neexistuje sexuálna výchova ako samostatný predmet na školách a preto nie je možné posúdiť, aké informácie sa k žiakom a žiačkam dostávajú v rámci iných predmetov a nakoľko sú uplatňované ich práva v praxi. Poradenstvo v oblasti antikoncepcie by malo byť súčasťou gynekologických prehliadok, ktoré sú hradené z verejného, zdravotného poistenia. To sa dá považovať za jeden z mála pozitívnych prvkov. Významným problémom sa ukázala byť aj výhrada vo svedomí zdravotníckeho personálu.
Slovenská republika vykazuje za sledované obdobie určité aktivity s účelom napĺňať svoje záväzky voči CEDAW Dohovoru. V oblasti reprodukčných práv, aj kvôli prijatiu retrogresívnych opatrení v oblasti antikoncepcie a interrupcie a zároveň situácie mnohých žien v praxi, však nevnímam Slovenskú republiku ako aktívnu a snažiacu sa napĺňať svoje medzinárodné záväzky. Práve v tejto oblasti sa posúva krajina vzad a nie vpred.

Použitá literatura

1. AMNESTY INTERNATIONAL. *Čo sú sexuálne a reprodukčné práva.* 2014 [online] dostupné na: http://www.amnesty.sk/co-su-sexualne-a-reprodukcne-prava/ [naposledy navštívené 23.04.2016]
2. CANADIAN TEACHERS´ FEDERATION. *Understanding how rights are protected.* 2015. [online] dostupné na: http://sttpcanada.ctf-fce.ca/rights-responsibilities/understanding/ [naposledy navštívené 22.04.2016]
3. CASSESE, A. (2005): *International Law.* Oxford University Press Inc. New York. 2. edition, 2005, ss. 6, 199, 352-383, 394.
4. CENTRE FOR REPRODUCTIVE RIGHTS, MOŽNOSť VOĽBY, OBČAN, DEMOKRACIA A ZODPOVEDNOSŤ. *Vypočítaná nespravodlivosť. Zlyhávanie*

[4] *Lekáreň Mária, s.r.o, Rajecká cesta 14*, *Rajecké Teplice* (Oficiálna stránka mesta Rajecké teplice)
Lekáreň pod Hradom, Štúrova 7, Smolenice (Smolenice – oficiálne stránky obce, n.d.)

Slovenskej republiky v zabezpečovaní prístupu k antikoncepčným prostriedkom, 2011, ss. 18-36.
5. ČORŇÁKOVÁ, V. Interrupcie nerobie všetky nemocnice. *korzar.sme.sk*, 2011.[online] dostupné na: http://korzar.sme.sk/c/5645092/interrupcie-nerobia-vsetky-nemocnice.html Čorňáková 2010 [naposledy navštívené 22.04.2016]
6. D'CUNHA, J. *Claim & Celebrate Women Migrants' Human Rights through CEDAW: The Case of Women Migrant Workers. A UNIFEM Briefing Paper.* Bangkok: United Nations Development Fund for Women, 2005 - 1. kapitola: CEDAW's uniqueness: an overview. ss. 1-14.
7. DEBRECÉNIOVÁ, J., eds. *Inšpekcia práce a zásada rovnakého zaobchádzania s dôrazom na pohlavie a rod: právne rámce, bariéry, príklady dobrej praxe a odporúčania pre legislatívu, politiky a prax v SR.* Bratislava: Centrum vzdelávania MPSVR SR, 2014, ss. 31-34. [pdf] [online] dostupné na: http://www.gender.gov.sk/wp-content/uploads/2015/09/Anal%C3%BDza-s%C3%BA%C4%8Dasn%C3%A9ho-stavu-vykon%C3%A1vania-in%C5%A1pekcie-pr%C3%A1ce.pdf [naposledy navštívené 23.04.2016]
8. DRGONEC, J. *Ústava Slovenskej Republiky. Komentár.* Šamorín: Heuréka, 2. vydanie. 2007, ss. 130-131, 1149.
9. EDWARDS, A. *Violance against Women under Interrnational Human Rights Law*. New York: Cambridge University Press, 2011, s. 151-152, 154.
10. ESCR-Net. Human Rights Enforcement Mechanisms of the United Nations. *ESCR-Net - International Network for Economic, Social & Cultural Rights*, n.d.. [online] dostupné na: https://www.escr-net.org/docs/i/405650 [naposledy navštívené 22.04.2016]
11. europa.eu – european e-justice. *Medzinárodné právo.* 2015. [online] dostupné na: https://e-justice.europa.eu/content_international_law-10-sk.do [naposledy navštívené 22.04.2016]
12. EUROPEAN INSTITUTE FOR GENDER EQUALITY. *Gender Equality Index 2015 Measuring gender equality in the European Union 2005-2012 – Report*. Italy: European Institute for Gender Equality. 2015, ss. 75,79 [pdf] [online] dostupné na: http://eige.europa.eu/sites/default/files/documents/mh0215616enn.pdf [naposledy navštívené 22.04.2016]
13. HARRIS, D. *Cases and Materials on International Law.* London: Thomas Reuters (Legal) Limited. Sweet & Maxwel, 7. edition, 2010, ss. 2, 56-57, 536-537.
14. ICELANDIC HUMAN RIGHTS CENTRE. *Implementation.* n.d. – B. [online] dostupné na: http://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/implementation [naposledy navštívené 22.04.2016]
15. ICELANDIC HUMAN RIGHTS CENTRE. *Alteration of human rights treaty obligation.* n.d. - A [online] dostupné na: http://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/alteration-of-human-rights-treaty-obligations [naposledy navštívené 24.04.2016]
16. Ice ICELANDIC HUMAN RIGHTS CENTRE. *Alteration of human rights treaty oblgations.* n.d. [online] dostupné na: http://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/part-i-the-concept-of-human-rights/alteration-of-human-rights-treaty-obligations [naposledy navštívené 22.04.2016]
17. JURČOVÁ, D. *Slovník demografických pojmov.* INFOSTAT- Inštitút informatiky a štatistiky. Bratislava: Výskumné demografické centrum. 2005, s. 34. [pdf] [online] dostupné na: http://www.infostat.sk/vdc/pdf/slovnik_2verdd.pdf [naposledy navštívené 23.04.2016]

18. KOPCSAYOVÁ, I. Interrupcie nerobíme. Z technických príčin. *správy.pravda.sk*, 2011 - A. [online] dostupné na: http://spravy.pravda.sk/domace/clanok/169160-interrupcie-nerobime-z-technickych-pricin/ [naposledy navštívené 22.04.2016]
19. KOPCSAYOVÁ, I. Mnoho štátnych nemocníc interrupcie nerobí, univerzitná v Bratislave bude. *správy.pravda.sk* , 2011. [online] dostupné na: http://spravy.pravda.sk/domace/clanok/169201-mnoho-statnych-nemocnic-interrupcie-nerobi-univerzitna-v-bratislave-bude/ [naposledy navštívené 22.04.2016]
20. KORMIDLO.SK. Pro-life lekárne. n.d. [online] dostupné na: http://kormidlo.sk/nakupujte-v-prolife-lekarnach/#.VxqY2PmLTIU [naposledy navštívené 22.04.2016]
21. LAMAČKOVÁ, A., eds. *Tieňová správa pre Výbor pre odstránenie diskriminácie žien.* Bratislava: Možnosť voľby. 2008, ss. 30-37.[pdf]
22. LAMAČKOVÁ, A., PIETRUCHOVÁ, O. *Sexuálne a reprodukčné zdravie a práva* in: Mesochoritisová, A., Zezulová, J., eds.. *Monitorovacia správa o plnení Záverečných zistení Výboru pre odstránenie diskriminácie žien v SR*. Bratislava: Možnosť voľby. 2011, ss. 59-65.
23. MINISTERSTVO SPRAVODLIVOSTI SR – Portál právnych predpisov. Národný program starostlivosti o ženy, bezpečné materstvo a reprodukčné zdravie v Slovenskej republike. 2009. [online] dostupné na: https://lt.justice.gov.sk/Document/DocumentDetails.aspx?instEID=56&matEID=1487&docEID=57278&docFormEID=1&docTypeEID=1&langEID=1&tStamp=20090514131604687 [naposledy navštívené 23.04.2016]
24. MINISTERSTVO ZAHRANIČNÝCH VECÍ A EURÓPSKYCH ZÁLEŽITOSTÍ SLOVENSKEJ REPUBLIKY. SR v OSN. Slovenská republika a Organizácia spojených národov (OSN). 2009-2016.. [online] dostupné na: https://www.mzv.sk/zahranicna_politika/slovensko_v_osn-sr_v_osn [naposledy navštívené 23.04.2016]
25. MOKRÁ, L. Aplikácia zásady prednosti s kontexte Slovenskej republiky. *Acta Iuridica Olomucensia Vědecký časopis právnický – Journal for Legal Research,* 2014, Vol. 9, No. 1, 7-15.
26. MOŽNOSŤ VOĽBY. *Dohovor o odstránení všetkých foriem diskriminácie žien. Pre verejnosť.* Bratislava. 2012. [pdf] [online] dostupné na: http://moznostvolby.sk/wp-content/uploads/2012/03/cedaw_prirucka_verejnost.pdf [naposledy navštívené 23.04.2016]
27. MRÁZ, S., POREDOŠ, F., VRŠANSKÝ, P. *Medzinárodné verejné právo.*Bratislava: Univerzita Komenského. 2003, ss. 208-213, 226-227
28. OFICIÁLNA STRÁNKA MEDSTA RAJECKÉ TEPLICE. Lekáreň. n.d. [online] dostupné na: http://www.rajecke-teplice.sk/?stranka=lek%C3%A1re%C5%88 [naposledy navštívené 23.04.2016]
29. PÁNIKOVÁ, N. PAVLÍČKOVÁ, Z. *Sprievodca ľudskoprávnymi záväzkami Slovenskej republiky voči OSN.* Bratislava: Slovenské národné stredisko pre ľudské práva, 2014, ss. 34, 45-49
30. Rozhovor s Adrianou Mesochoritisovou – Možnosť voľby, 14. marca 2016, Bratislava
31. Rozhovor s Jankou Debrecéniovou, Občan, demokracia a zodpovednosť, 7. marca 2016, Zvolen.
32. Rozhovor s Monikou Krškovou a Zuzanou Pavlíčkovou, SNSĽP, 9. marca 2016, Bratislava.
33. Rozhovor s Oľgou Pietruchovou, MPSVaR, ORRRP, 30. marca 2016, Bratislava.
34. RÚVZ LEVICE. Ponuka prednášok. n.d. [online] dostupné na: http://www.ruvzlv.sk/?id_kat_for_menu=6371 [naposledy navštívené 23.04.2016]

35. RÚVZ NITRA. Ponukový list zdravotno – výchovných aktivít Oddelenia výchovy k zdraviu.2012. [online] dostupné na: http://www.ruvznr.sk/?c=./vkz/ponuka [naposledy navštívené 23.04.2016]
36. SEPEŠI, P. VIEDENSKÝ DOHOVOR o zmluvnom práve (Viedeň, 23.5.1969). 2010. Článok 2 ods. 1, článok 11, článok 26. [online] dostupné na: http://www.ucps.sk/clanok-0-795/VIEDENSKY_DOHOVOR_o_zmluvnom_prave_(Vieden__23_5_1969)_.html [naposledy navštívené 25.04.2016]
37. SKALOŠ, M. Štátne nástupníctvo po dismembrácii Českej a Slovenskej federatívnej republiky. *Dni práva 2012. Sborníky. Masarykova Univerzita*, 2012. [pdf] [online] dostupné na: http://www.law.muni.cz/sborniky/dny_prava_2012/files/rozpad/SkalosMartin.pdf [naposledy navštívené 23.04.2016]
38. SMOLENICE – OFICIÁLNE STRÁNKY OBCE. Rozličný predaj. n.d [online] dostupné na: http://www.smolenice.com/ [naposledy navštívené 23.04.2016]
39. UN CEDAW COMMITTEE - CEDAW/C/SVK/CO/4. Draft concluding observations of the Committee on the Elimination of Discrimination against Women: Slovakia. 2008. ss. 2-10.F [pdf] [online] dostupné na: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW%2fC%2fSVK%2fCO%2f4&Lang=en [naposledy navštívené 24.04.2016]
40. UN CEDAW COMMITTEE - CEDAW/C/SVK/Q/5-6. List of issues and questions in relation to the combined fifth and sixth periodic reports of Slovakia.2015, s. 4. [pdf] [online] dostupné na: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW%2fC%2fSVK%2fQ%2f5-6&Lang=en [naposledy navštívené 24.04.2016]
41. UN CEDAW COMMITTEE - CEDAW/C/SVK/Q/5-6/Add.1. List of issues and questions in relation to the combined fifth and sixth periodic reports of Slovakia Addendum Replies of Slovakia. 2015, s. 20. [pdf] [online] dostupné na: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW%2fC%2fSVK%2fQ%2f5-6%2fAdd.1&Lang=en [naposledy navštívené 24.04.2016]
42. UNITED NATIONS – A/53/38/Rev.1. Report of the Committee on the Elimination of Discrimination against Women (Eighteenth and nineteenth sessions.1998. [online] dostupné na: http://www.un.org/womenwatch/daw/cedaw/reports/18report.pdf [naposledy navštívené 24.04.2016]
43. UNITED NATIONS - Information Centre Prague. *Charta Organizace spojených národů a Statut mezinárodního soudního dvoru.*n.d. [pdf] [online] dostupné na: http://www.osn.cz/wp-content/uploads/2015/03/charta-organizace-spojenych-narodu-a-statut-mezinarodniho-soudniho-dvora.pdf [naposledy navštívené 22.04.2016]
44. UNITED NATIONS. Short History of CEDAW Convention. *UN Women,* 2000-2009. [online] dostupné na: http://www.un.org/womenwatch/daw/cedaw/history.htm [naposledy navštívené 24.04.2016]
45. ÚRAD VEREJNÉHO ZDRAVOTNÍCTVA. Programy a projekty úradov verejného zdravotníctva v Slovenskej republike. Odpočet plnenia k 31.12.2011. 2012, s. 244 [pdf] [online] dostupné na: http://www.uvzsr.sk/docs/pap/PaP_RUVZ_v_SR_31_12_2011.pdf [naposledy navštívené 23.04.2016]
46. ÚRAD VEREJNÉHO ZDRAVOTNÍCTVA. *Programy a projekty úradov verejného zdravotníctva v Slovenskej republika. Odpočet plnenia k 30.06.2010.,* JÚL 2010, s. 912. [pdf] [online] dostupné na: http://www.uvzsr.sk/docs/pap/PaP_RUVZ_v_SR_30_6_10.pdf [naposledy navštívené 23.04.2016]
47. VAN DERVORT, R., T. *International Law and Organization. An Introduction.* California: SAGE Publications, Inc., 1998, ss.70, 378-380.

48. Zákon č. 345/2009 Z. z 19. júna 2009, ktorým sa mení a dopĺňa zákon č. 576/2004 Z. z. o zdravotnej starostlivosti, službách súvisiacich s poskytovaním zdravotnej starostlivosti a o zmene a doplnení niektorých zákonov v znení neskorších predpisov
49. Zákon č. 363/2011 Z. z. - Zákon o rozsahu a podmienkach úhrady liekov, zdravotníckych pomôcok a dietetických potravín na základe verejného zdravotného poistenia a o zmene a doplnení niektorých zákonov
50. Zákon č. 419/1991 Zb. - Zákon Slovenskej národnej rady, ktorým sa menia a dopĺňajú niektoré predpisy v oblasti zdravotníctva
51. Zákon č. 576/2004 Z. z. - Zákon o zdravotnej starostlivosti, službách súvisiacich s poskytovaním zdravotnej starostlivosti a o zmene a doplnení niektorých zákonov
52. Zákon č. 577/2004 Z. z. - Zákon o rozsahu zdravotnej starostlivosti uhrádzanej na základe verejného zdravotného poistenia a o úhradách za služby súvisiace s poskytovaním zdravotnej starostlivosti
53. Zákon č. 578/2004 Z. z. - Zákon o poskytovateľoch zdravotnej starostlivosti, zdravotníckych pracovníkoch, stavovských organizáciách v zdravotníctve a o zmene a doplnení niektorých zákonov
54. Zákon č. 73/1986 Zb. Zákon Slovenskej národnej rady z 23.októbra 1986 o umelom prerušení tehotenstva
55. ŽIAKOVÁ, M. in: SUDOR, K. (2011): Sexuálna výchova na školách – zjednotiť či nie?. *Sme Domov*, 2011.[online] dostupné na: http://domov.sme.sk/c/5783002/sexualna-vychova-na-skolach-zjednotit-ci-nie.html [naposledy navštívené 23.04.2016]

Aktívna účasť na konferencii bola podporovaná Agentúrou na podporu výskumu a vývoja na základe Zmluvy č. APVV-16-0540

Kontaktné údaje

Mgr. Michaela Dénešová
Univerzita Komenského v Bratislave, Fakulta sociálnych a ekonomických vied, Ústav európskych štúdií a medzinárodných vzťahov
Mlynské luhy 4, 821 05 Bratislava, Slovenská republika
Tel: +421 911896800 email: michaela.denesova@fses.uniba.sk

ANALYSIS OF THE EFFORTS TO OVERTURN MEČIAR´S AMNESTIES

Peter Juza, Nikola Šimuneková

Abstract

In the last half a year a call for moral justice has been heard from the Slovak society over the issue of presidential amnesty. Politicians have sought to decide whether the granted Amnesty should be removed due to the lies which were committed in the "Mečiar" era or as a duty for the Slovak nation. In this article we will try to clarify the context between granting and interfering with Amnesty in 1998 over the abuse of the political power in the Slovak Republic.

Keywords: *Amnesty, Mečiar, Political parties, Slovak Republic*

INTRODUCTION

Granting Amnesty has become a burning topic since April 2017, when not only the political actors but the Slovak society as well started to call for justice between political and common life. First of all, we have to ask where the borders of relevant political actors' climb. Who can decide about amnesty and is it possible to nullify and reopen cases in which the legitimate amnesty was granted? The case in question regards the kidnaping of President Kovac's. There are several additional questions that are raised by this one simple question. Such as, does parliament have enough authority to nullify the granted amnesty or does this contradict with the Constitution of the Slovak Republic? What kind of legitimacy remains in the future, or what kind of relationship between constitute institutions will occur after breaking such an amnesty from the power of the Constitutional Court? Are the powers of the President of the Slovak Republic weakened? There is a clash of two points of view on the topic of amnesty where, on the one hand there stand the politicians who are calling for revoking the granted amnesty and, on the other hand, political scientists and lawyers who say that amnesty is unbreakable. The goal of this paper is to offer a partial analysis of relations between constitutional institutions of SR and the order of law of SR and try to clarify to what extend the parliament can force or change a significant act which the granting amnesty is.

By looking at this issue a question is asked: who is responsible to overturn amnesty? Can it be politicians or political parties committed through the Constitution of the Slovak Republic in a new amendment in order to preserve the competency of amnesty? The amendment consists of submitting a proposal to change how a person is granted amnesty. The right to grant amnesty belongs to the Head of the State who represents the interests of the Slovak Republic and provides regular order between the constitutional institutions. The president gains his mandate from the voters of Slovak Republic.

In the time of the granting amnesty[1], the Slovak republic did not have a Head of State, so those functions had been represented by the Prime minister, Vladimir Mečiar, according to the Constitution. Based on implementation of the function of the head of the state, Prime Minister and Acting-President Mečiar used many presidential competences including amnesty. Additionally, the years 1994-1997 saw many nondemocratic acts and conflicts between governance institutions of the Slovak Republic.

[1] *: "... I forbid and if it is started to stop all investigations of deeds what they have to do with the introduction of Michal Kováč Jr. to abroad... "*(Amnesty Decision, 1998).

1 STATUS OF THE DEMOCRACY IN SR 1995-1998

In 1995, the government of the Slovak Republic was a coalition consisting of the leader of the government – *Movement for Democratic Slovakia* (HZDS) + *Slovak national party* (SNS) + *Workers party of Slovakia* (ZRS). Although these political parties were different in their ideological orientation, the common point consisted of an authoritative understanding of politics. In 1995, the party system of the SR with adequately profiled political parties was not fully crystallized, so the later party system can be described as a reflection of basic socio-cultural characteristics (Mesežnikov, G., 1995).

The short period of democracy and autonomy of the Slovak Republic has been strongly reflected in the relations between the institutions in the state that have made significant use of it for their benefit, and the further they distanced themselves from democratic practices. There was a constant growing dissatisfaction among citizens from year to year over the political process and, in general, how democracy evolved and how human rights were not respected. Last but not least, the feeling of civic inability grew, not only towards central institutions but also to public administration as well. In the years, 1994, 1995 and 1996, the situation of citizens' disappointment was maintained by functioning political parties and they did not consider them to be a guarantee of democracy (Mesežnikov, G., 1997). This disappointment was also reflected in the tension between the two executive branches: the president and premier.

The endless effort of then Prime Minister Vladimir Mečiar to discredit President Michal Kovac dramatically wiped out the prime minister's credibility in the perception of the citizens, and then the least criticism was given to the Constitutional Court and the President. On the contrary, the credibility of the National Council and the Government of the Slovak Republic decreased significantly according to public opinion surveys in 1996 (Bútorová, Z., 1996).

1.1 The Governance coalition vs. The President of the Slovak Republic

Shattered relations between President Kovac and the Prime Minister Mečiar resulted in a major anti-presidential campaign which was primarily done by Mečiar's HZDS that tried to dismantle and completely discredit Michael Kovac from the presidency. Thus, the coalition majority applied considerable control powers over the President, as well as over the opposition, even in cases that were not defined in the Constitution. The Coalition thus decided that the President's competence would be to restrict the loss of the possibility of appointing the Director of the Inform*ation services of* Slovakia (SIS) to the President on the basis of the Constitution of the Slovak Republic. The take of the Competence constituted his appointment or appeal immediately upon the proposal of the Prime Minister of the Slovak Republic, as well as the power to appoint and recall the Chief of General Staff The army, which also fell to the government of the Slovak Republic, and, last but not least, the changes in the way in which the referendum was conducted, when the President's limitation lies in the impossibility of examining petitions requesting a referendum.

The constant tension between the President and the Prime Minister resulted in false allegations, when the government called on the President to resign. In his effort to confront the president, his entire office moved through government budgeting from the government side and thus developed the space for an anti-president campaign headed by Mečiar. On the basis of the underlying information, it is clear that the campaign against Michal Kováč had a very political motivation (Mesežnikov, G., 1995).

In spite of the anti- presidential campaign, the office of the presidency in the eyes of the citizens had not lost its trust, but, on the contrary, it had maintained a relatively strong position vis-à-vis the public. Public opinion about the investigation into the kidnapping of the President's son is, that most of the people have the impression that the government has a high level of unwillingness to investigate the case. (Mesežnikov, G., 1996). In order to

significantly publicize the case and the used rhetoric as a conspiracy theory, the government only made the fact that the voters' preferences had declined markedly and, on the contrary, the president had grown in their eyes.
At that time, however, the policy was not understood properly, and many citizens did not understand what was happening in the Parliament, or there were serious concerns about what was happening in politics and, to a large extent, the dissatisfaction with the status of democracy prevailed in the conditions of the Slovak Republic, such as basic human rights, or freedom of speech, expression, or press. Its considerable constraint contribution to misinformation in the media, which had been so deeply concerned with the governmental coalitions, or those that did not, have had a great deal of pressure on the press. Despite the fact that society was calling for democratic values, media freedom did not consider it a priority, on the contrary, they agreed that the media should be controlled by the state. With this control, voters only read what the government had found fit.

Tab. no. 1 The Principles of political life according the citizens SR

Principles of political life (statement A vs. statement B)	**Year**	**Preferences on the A reaction vs. B reaction**
Keep the law		
A It is inadmissible for a politician to violate the law, not even with the justification that he wants citizens well	1994	66:6:28
B A politician who wants citizens well can occasionally violate the law	1995	69:11:20
Negotiation or strong hand	1994	51:23:26
A In politics patient negotiation is important		
B The important is to decide and strong hand of strong person	1995	54:25:21
Opinion plurality or Unity of Nation?	1994	36:28:36
A Paramount is according to public opinion plurality and democracy		
B Paramount is unity	1995	39:32:29
The minority rights		
A In democracy minority rights are needed to be consistently respected	1994	50:23:27
B In democracy the majority has the right to decide at the expense of the minority	1995	51:54:25
The media freedom		
A The government shouldn’t rule and control the activity of TV, broadcast and press	1994	68:8:24
B The government should rule and control the activity of TV, broadcast and press	1995	72:10:18

Source: Public opinion in SR 1995

2 THE ACTUALLY ISSUE OF INTERFERENCE SO CALLED MEČIAR´S AMNESTY

Efforts to break the so called Meciar amnesties have been attempted eight times, but it has never happened, due to the fact that amnesty is legally irrevocable. Attempts to abolish the amnesty granted by the then Acting- President the Meciar had begun by the Christian-

Democratic movement, which constantly acknowledged the need to nullify them. For the first time, Mikulas Dzurinda, who was the first elected prime minister in free elections, was calling for their abolition. The request was filed with the Constitutional Court of the Slovak Republic which in 1999 expressed its opinion on the status of the amnesty: "The President is competent to grant it but not to abolish it" (Resolution of the Constitutional Court, SR, 1999). It does not belong to the President according to the Constitution of the SR. It can be said that the opening issue of the interference of the Mečiar's amnesty became the cause of opposition parties - the opposition party of the KDH, SDKÚ who claimed amnesty was amoral and irrevocable, but on their part there was a great interest in finding a way that would allow the amnesties to be canceled. The Parliament, however, declined to discuss the question of amnesty interference, refusing to abstain because the politicians realized that this was an impossible effort on the part of the KDH. But for the years when the amnesty was granted, and no one ever went to the Constitutional Court to decide or change the entire constitution, so that politicians could change the President's decision if it was amoral.

However, the status of the amnesty rests precisely in its amorality, because the amnesty is imposed on the accused or the convicted for the deeds they have done. Under the circumstances, it was very easy for the then-Prime Minister Meciar when he was acting as the president, and his government had a majority in the Parliament. (Mesežnikov, 1998).

One attempt to break the amnesty this year was through a constitutional act. However, immediately at the beginning of the negotiations on this proposal, the politicians encountered a significant problem in interpreting the constitutional law. The Constitutional Act is of a universal nature, that is, it applies to all citizens of the state and to the same extent (Drgonec, 2012). The decision on amnesty published in the Collection of Laws by V. Meciar has the exact wording*: "... I forbid and if it is started to stop all investigations of deeds what they have to do with the introduction of Michal Kováč junior to abroad... "*(Amnesty Decision, 1998). This constituted amnesty cannot create a constitutional law that would be able to abolish it. Amnesties enter into force on the day of issue in the Slovak Collection of Laws. But the principle of the rule of law precludes the intervention of one authority in the jurisdiction of the other, where it has no authority and its breach is inadmissible. Furthermore, Šramko states that the proposed constitutional law: "fights against the meaning of the Constitution as a sum of general and pre-known rules and interferes with the exclusive competencies of the President (...) *Neither the Constitutional State, therefore, may declare as a constitutional law a norm that does not have the character of law not at all constitutional. The opposite is an unconstitutional self-interest* "(Šramko, 2016).

The current proposal for a change passed in the Parliament consists of a complete change of part of the Constitution, which will allow the National Council of the Slovak Republic to cancel the amnesty, which will be granted by the president either in the form of an individual grace or group amnesty if it was granted amorally. Here again comes the question of who is able to decide what is amoral and what is not? Efforts to abolish the amnesty border in the mix of politics into law should be clearly distinguished in full. Whether the amendment of the Constitution does not violate the principles of the constitutionality of the Slovak Republic will be decided by the Constitutional Court (Šramko, 2016). The first vote on the cancellation of the amnesty granted by the Constitutional Act, which would repeal the amnesty, was filed by the opposition MP Jan Budaj from political party *Ordinary people and independent persons* (OĽaNO) who was convinced that the Parliament would approve the proposal. The proposal gained support of the entire opposition, paradoxically without KDH, which is not in the parliament this term. The abolition of the amnesty by constitutional law was considered by Budaj to be a good idea mainly because there is no waiting time as the constitutional law is valid on the date of the declaration of the draft in the Collection of the Law of the Slovak Republic.

The way in which the President's decision to change Parliament would result in the disintegration of the pillars of the rule of law, when the parliament could arbitrarily annul the decisions of other governmental institutions of the Slovak Republic. But the pressure from the public forced the current coalition parties to act so that the amnesty interference was not in contradiction with the Constitution, so they came up with a proposal to change the constitution where it is to be stipulated that the National Council (parliament) may cancel the amnesty if it is amoral. In order to declare a constitutional amendment, it is necessary to pronounce it at the Constitutional Court. This is where the problem of the so called Mečiar's amnesties to another stone of accident, when not all judges are appointed. Currently, ten full-time judges are active. However, it is necessary to validly approve the proposal to change the Constitution of the Slovak Republic by the majority of all judges, which is 7 votes. And so anti-Mečiar's will have to collect 7 votes out of the current 10, which therefore greatly reduces the parliament probability and can thus pose a significant problem in canceling amnesty. However, current President Andrej Kiska still refuses to appoint the remaining three judges of the Constitutional Court who are Smer-SD nominees.

At the beginning of the year amnesty has become such an exciting topic and, in essence, a political game. In the case of this a political actor is accustomed to turning a basket according to who lives the blow and the amnesty of the case is no exception. At the beginning of the year Robert Fico talked about the irrevocability of the amnesty, along with Andrej Danko, leaders of governing coalition parties Smer-SD and SNS respectfully and is suddenly now at the forefront of their discussions. The media also state that there is a fear of public amnesty in the change of attitude towards the amnesty the last anti-corruption march on 18 April, Of the possible concerns of the second Romanian act. Such a cancellation of amnesty can be considered as a political action, the decision of which was influenced by the populism of political parties SNS and Smer-SD. It has also begun to engage in lawmaking policy, and it is a respectable act of the coalition and the opposition to have the Constitutional Court decide when the scenario and the withdrawal of the amnesty by the Constitutional Court are possible, but political and electoral emotions of this kind are typical for politics and not for law (Danish, D., 2017).

The question of breaking amnesty is not as simple as it seems to the citizens of the Slovak Republic and politicians realize it as well. The efforts of the Constitutional Court taking back responsibility towards breaking this amnesty act is a very clever move politically speaking, since any decision of the Court has to be respected.

However, politicians have also come relatively quickly to make it impossible in this way, even though the amnesty is granted in mass but linked to certain offenses, or specifically to persons in cosignatory with the Prime Minister, while the constitutional law is of a universal nature covering the entire society, and that in the same way. Amnesty is granted by the president, but he can no longer cancel it, nor is there any more specified act of cancellation of the amnesty in the institution. It has already made the character of the amnesty irreplaceable. The extent to which a convicted person is participating in an amnesty decides which court has convicted the offender. Subsequently, he or she will be granted by the President amnesty. However, it is valid only after a counter-signature by the Prime Minister (Ševčík, M. 2017). Contradictory opinions are held amongst legal scholars. It depends on which side are they represent. Most lawyers on the opposition speak to the possibility of interference on amnesty. So, a conflict of opinion on this topic too. The importance is looking at this issue in the Constitution. And it says that amnesty is unbreakable, amoral because it´s the subjective action of person (president) who granted it for crimes or events which had been committed. The situation in which the amnesty was granted was not ordinary because of the political scene and the power conflict.

Most of the judgement is only on the act of interference but not what happened after it. What do we expect from breaking amnesty? Just investigation of murder Robert Remiáš and the deeds, what have to do the kidnaping Michal Kováč Jr. abroad. It is not sure if this e crime has expiration, after almost 20-years. It can be sad that after all these years it´s not about justice and moral or law, but the rise of populism and the political campaigns of various politicians. And what of interference? —does the amnesty actually deny the rights of state? And the one who was strict against breaking is now on the head of it. And here´s the question, why then no and now yes? Modern political party regularly follow the surveys and try to adequate reflect needs of they´re citizens. At these times the voter of Slovak republic asking for need to break granted amnesty. Actually emotions get the cause in the move, and it is very questionable whether the culprit will be punished.
On the one hand, we all agree that the amnesty is amoral, and if broken by a change of constitution as an alternative to the constitutional law, and thus the possibility of Parliament to abolish what the President has done, would distort the traditional division of the three components of power into the executive the constitution will be able to interfere with the law. And that's just the beginning, suppressing the system and countering the future may mean so much that Parliament will start to interfere with the Constitutional Court or amend its judgments, which will already be a complete disintegration of the rule of law. The whole game of so-called "Meir's amnesty" represents both benefits and costs, and the precedent of accountability alone would not have to set justice. But under the conditions of our institutions and our democracy, it is very questionable to what extent it is good to break the precedent of the amnesty and to take responsibility when the institutions are not in agreement.

Tab. no. 2 The statements of political parties/individual actors about possibility to break the amnesty between 2010-2016

YEAR	POLITICAL PARTY/POLITICAL ACTOR	THE STATEMENT
2010	SNS (Slovak national party)	The political party is not going to support braking the amnesty
	Robert Fico SMER	Amnesties are unbreakable – If it would be possible to break the amnesties granted by president, it would by insecure the right stability in existing law system
2011	KDH - P. Hrušovský (Christian-democratic party)	After 6. Times is opening the question about interference so called Mečiar´s amnesties. Breaking the amnesties is needed for keeping the legitimacy these institute, development of freedom system, amnesties granted with V. Mečiar presents the defect of democratic society and in Slovak right and society system figure as the dark shadow of injustice and abusing political power against own citizens. Amnesties cross the line of political fight, it represents the consequences of commitment, which are in shoulders of all of us. The acts which are apologized through the amnesty represents the terror acts with government actors
	M. Kováč	Supports breaking of granted amnesties

	SNS	Is not willing to share on breaking amnesty (in that time were coalition partner of HZDS)
	SMER	Amnesties are amoral, but in law side are interference.
2012	KDH-Hrušovský	Again opens the amnesty issue, he sees it through major law barrier. He defend it through general law act and it is possible to add, change or decline
2014	KDH- Ján Fígeľ	From KDH party the question has been opened by Ján Fígeľ.
	Iveta Radičová	The amnesties destroyed the investigation of two crimes – kidnapping M. Kováč Jr. to the abroad and the murder Robert Remiáš
2015	ECJ	Amnesties were amoral, but still interference
	Robert Fico	Everyone should give back the law degree, who try to break the amnesties.
	KDH	The kidnaping and the murder are crimes on the government shoulder.
	Andrej Kiska	He is judging the amnesty, but their interference sees as the very important signal from the politics to the people.
Dec. 2016	Andrej Danko (SNS)	Parliament cannot break the amnesties – it would by demented the position of president as well. He is realizing the dark point on the pillars of democracy Slovak republic, but nothing changes the fact, that parliament cannot interference the amnesty.
	Ján Budaj (OĽaNO) (Ordinary people and independence persons)	The amnesty break by constitutional law – as the same as in Argentina!
	Most-Híd (The Bridge)	The party is thinking about supporting Budaj´s proposal
	Andrej Danko (SNS)	The party is thinking about supporting Budaj´s proposal

Source: The online database of Aktuality.sk 2010-2016

Together with the increasing pressure from the people in favor of the abolition of the so-called Mečiar's amnesty brought a change in the attitudes of the main political actors. The table below provides an overview of specific votes in individual polling stations from available archives of the Parliament. The motion for the abolition of amnesty was voted for by a simple law, but the proposal did not have sufficient support for Members and did not consider the abolition of amnesty to be important. In the amnesty vote, a number of Members abstained in the last year. The proposal did not go through until the second reading and in 2006 there was a vote on the proposals not to continue with it.

3 CONCLUSION

The topic of overturn the so called Mečiar´s amnesties caused so many discussions in different areas of Slovak society – within political scholars, within ordinary citizen society and as the sensation in TV media and press. Doing things after twenty years is possible to a point as anything else but not as justice, society faces much more important occasions than

call for justice from affairs twenty years earlier (Mihálik, 2015). That´s the first point. On the other hand, the way the politicians' want to break the amnesty is not so clear either. To take away responsibilities from act itself is to let it for the Constitutional Courte a clever tactic, but after it the Parliament can change the competences of this institute itself and then there is the concern of missing the system checks and balances. Additionally, are the ways of interference, we had the constitutional act that was unacceptable because the initiative from the parliament side to the state institutions active in criminal proceedings which would be involved in the amnesty – the National Council (Parliament) cannot to do everything or the National Council is not limitless (Šramko, 2016). Finally, abuse of the legislative process through making acts during which would by extent to agency of other institutions is another concern.

The era of granting Amnesty is very controversial epoch for Slovak Republic, because the fact that the president has only the right to grant it is the year when the Slovak Republic did not have a duly elected president but only a representative who took up only part of the presidential powers. And yes, the amnesty should by declined right after granted and not after twenty years. The efforts for interference was also in the era Prime Minister Dzurinda. Why it was not possible then and now? The possibility of granting the amnesty is result of the constitutional law which is full of holes and confusedness. The most part of argumentation for interference applies only for the acts pertaining to kidnaping and responsibility for the death of an innocent man. Is needed to say that the constitutional act fulfills a number of requirements, and that is its universality and so it is directed towards all addressees and the given norm is to be determined in an abstract manner and thus can never deal with a particular case (Ševčík, 2017).

Amnesty, contrary to the law, which is a normative act and is generally binding, amnesty and grace is an individual legal act that is issued on the basis of an authority and specific acts. Concerning the competence of the parliament as a legislative component of power in the context of the law itself, Šramko argues as follows: *"The National Council of Slovak republic as the legislative authority is therefore entitled to the creation of the law, j. to issue generally binding legislation, but is not entitled to law enforcement, j. to issue individual decisions (not even cancellations) in specific cases, which would be issued by law or by constitutional law"* (Šramko, 2016). That point politicians have quite quickly understood and found another way to break amnesties over the Constitutional Court. If the execution is possible ones is possible anytime, and the space is open to precedent, when the political reasons can lead to change the Constitutional system of the country. And so acts have not to serve the Parliament as the instrument for the change and effort to the competing of other institutions. If it would be possible Parliament would be limitless, it would be enough to mention that it is about the constitutional act. The constitutional act is still under the Constitution, and therefore its creation itself must be subject to its definition, and only on the basis of what the constitution allows may be constitutional law created.

The theory of law the amnesty interpreting as: *"an institution which is generally interpreted as generalized forgiveness towards persons to whom an amnesty is directed, with legal effects which for its addressees implies a specific legal certainty which cannot be challenged by any legal process"* (Drgonec, 2012) Amnesty is therefore amoral from the very beginning and is aware of the institution of the president. Thus, on the one hand, it can be argued that any attempt to cancel the amnesty already granted is contrary to both the law and the constitution. It follows that the act thus established is inconsistent with the Constitution. After unsuccessful try from J. Budaj, of ordinary people and independent persons OĽaNO through constitutional act, came new, better version – through change of Constitution and so – through the Constitutional Court. The abolition of amnesty as proposed by political actors inadvertently interferes with the competencies of the National Council of the Slovak Republic and can

significantly weaken the rule of the state and thereby significantly diverge from the democratic pillars of the republic, the system of checks and balances could be vetoed in case of inappropriateness by the respective actors so they subsequently become the center of political games.

All effort at breaking amnesties sounds very sweet and justify, but takes with itself the bitter taste because what is the real reason on interference? Solving this has become after almost twenty years and eight attempts still a priority, but of questions motive. Political actors refer for the law, moral, justice and the subject of the amnesty as a violation of basic human rights because it prevents the state's constitution from investigating and punishing the culprits has been discussed more often but with new questions. Therefore, if the amnesty should be abolished altogether, the state will overcome the amoral deeds, but in this case the law will also apply *pro futuro* and not for already granted amnesties. And last but not least, the amnesty disturbed after twenty years has nothing to do with morality and justice. The amnesty from 1998 was granted in accordance with the Constitution, when the then Prime Minister exercised certain powers belonging to the President and was thus entitled to grant amnesty and to do so on the basis and within the limits of the Constitution.

References

1. BUZINGER, M., Mečiar´s amnesties and the Pandora´s Box. 2017. (online). In: právne listy.sk (cit. 2.5. 2017) Available in: < http://www.pravnelisty.sk/clanky/a532-meciarove-amnestie-a-pandorina-skrinka>
2. BÚTORA, M., Summary report on company status and trends: 1997. Inštitút pre verejné otázky. Slovensko v pohybe. ISBN 80-967725-1-1
3. BÚTORA, M., Summary report on company status and trends for year: 1995. Institute for public questions. Slovensko v pohybe. ISBN 80-85509-41-7
4. DRGONEC, J., Acting in front of the Constitution Court of Slovak republic. 2nd edition. Heureka 2012 ISBN 978-8089122-79-0
5. KRUTKOVÁ, E. The amnesties and the Right for the True. 2017. (online). In: právne listy.sk (cit. 2.5. 2017) Available in: <http://www.pravnelisty.sk/clanky/a534-amnestie-a-pravo-na-pravdu>
6. MIHÁLIK, J., Political legacy and youth civic engagement in Slovakia. Novo Mesto: Faculty of Organization Studies
7. The Decision of the prime minister of Slovak republic from. 3th. March 1998 about the amnestie. Zbierka zákonov 55/1998 o amnestii. 1998.
8. ŠEVČÍK, M., K problematike rozpravy o prijímaní ústavného zákona o zrušení „Mečiarových amnestií “. 2017. (online). In: právne listy.sk (cit. 2.5. 2017) Available in: < http://www.pravnelisty.sk/clanky/a526-k-problematike-parlamentnej-rozpravy-o-prijimani-ustavneho-zakona-o-zruseni-meciarovych-amnestii>
9. ŠRAMKO, P., Nosné dôvody rozhodnutia Najvyššieho súdu Argentíny ohľadne neústavnosti udelenej milosti. 2017. (online). In: právne listy.sk (cit. 2.5. 2017) Available in: < http://www.pravnelisty.sk/clanky/a521-nosne-dovody-rozhodnutia-najvyssieho-sudu-argentiny-ohladne-neustavnosti-udelenej-milosti>
10. ŠRAMKO, P., Skutočne možno zrušiť časť tzv. Mečiarových amnestií ústavným zákonom? 2017. (online). In: právne listy.sk (cit. 2.5. 2017) Available in: <http://www.pravnelisty.sk/clanky/a519-skutocne-mozno-zrusit-cast-tzv-meciarovych-amnestii-ustavnym-zakonom>
11. Constitution of Slovak republic and the List of Human rights. Nová práca, spol. s r. o., Bratislava 2010. ISBN 978-80-88929-94-9, 104 p.

Contact
Mgr. Nikola Šimuneková
doc. Mgr. Peter Juza, PhD., CSc.
University of Saints. Cyril and Methodius in Trnava
Faculty of Social Science
Department of Political Science
Bučianska 4A, 917 01 Trnava
nikola.simunekova@gmail.com

THE ACTIVITIES OF SLOVAK WOMEN'S ASSOCIATIONS IN THE NATIONALLY DIVERSIFIED REGIONS OF SLOVAKIA 1914-1945

Michaela Smidová

Abstract

The contribution will focus on activities of women's associations that were explicitly focused on women of Slovak nationality or associations whose member were predominantly Slovak women despite not being specifically nationally oriented.

Key words: *women's emancipation movement, associations, national minorities*

1 INTRODUCTION

For the Slovak society, the years between 1914 and 1945 were significantly tumultuous, whether it was in political and constitutional sense - turn from being an insignificant and repressed minority in the multiethnic monarchy of Austria-Hungary, to being a part of joint state with Czechs and Ruthenians, to an attempt at First Slovak Republic as a client state of Nazi Germany- as well as economic and social aspect, both of which underwent notable development towards the foundations of modern urban society.[1] Just like in most European countries, one of the most notable social changes was the progress in women's emancipation movement that, beside suffrage, granted to Czechoslovak women in the Constitution of 1920, women were allowed to participate in the public sphere, formerly reserved for men only.[2]

2 WOMEN'S ORGANISATIONS IN THE SLOVAK PART OF HUNGARY AND IN CZECHOSLOVAKIA

A new way for women (and generally for Slovak public) to become involved in public affairs after 1918, mostly on regional scale, were associations and clubs. After decades of prohibition of Slovak associations by the Hungarian government (with a notable exception being the Slovak Women's Association Živena, which however had been turned into a prevalently male national movement platform), new democratic republic allowed for a boom of various associations, including the ones focused on women, women's situation and Czech-inspired feminism. This contribution will focus on activities of women's associations that were explicitly focused on women of Slovak nationality or associations whose member were predominantly Slovak women despite not being specifically nationally oriented. The ethnical structure of the Interwar Slovakia was rather heterogenous; according to the first census of 1921, only 68% of citizens of Slovak counties belonged to the Czechoslovak nationality[3]

[1] Gabriela Dudeková. Vplyv Veľkej vojny a rozpadu Habsburskej monarchie na právne a spoločenské postavenie žien. In Lucie Kostrbová, Jana Malínská et al. 1918. Model komplexního transformačního procesu? Prague: Masarykův ústav a Archiv AV ČR, 2010, p. 169.

[2] Even though concepts of public and private sphere are not exactly defined in historiography, they are commonly used to illustrate the strict limitations of women concerning their access to decision-making powers and, in more general terms, their access to anything outside their predestined role of housewife and mother. More about the private/public binarity in the Central European context, read Gabriela Dudeková, Elena Mannová Rodové vzťahy a postavenie žien v období modernizácie. Výsledky najnovších výskumov (Úvod). In Človek a spoločnosť, v. 9, N 4 (2006); for the use in the modern women's history, read Lynn Abrams, The Making of Modern Woman (London: Routledge, 2002).

[3] Czechoslovak nationality was an artificially constructed nationality in order to strengthen the position of Czechs and Slovaks in their state, since the second most numerous nationality were Germans. This way, Slovaks were not considered a minority, but a specific branch of national majority. Andrej Tóth, Lukáš Novotný, Michal

while 21,5% of citizens claimed themselves as Hungarians, 4,73% as Germans and 2,38% as Jews with smaller percentage of Russians (including Russians, Ruthenians, Ukrainians), Poles and Romani.[4] Considering this situation, most women's associations were, either voluntarily or in hopes for increasing their financial contributions or public status, trying to broaden their activities to include non-Czechoslovak women as well. However, their efforts were met with mixed responses, which varied depending on the following factors: the prevalent nationality in the region, the prevalent religion of the region or the focus religion of the association, the centre/periphery binarity and the specific point of time, as the approach of minorities towards their integration into the Slovak society varied greatly depending on the political situation.
Already the years of World War I were a time of intensified activity of women's movement, especially Živena, whose focus changed after the death of one of the pre-World War I Slovak National Movement's leaders Svetozár Hurban Vajanský, son of J. M. Hurban and a vocal anti-feminist,[5] and Živena returned to its original goal - educational activities and promoting their ideal of a literate, modern, yet strongly nationally oriented Slovak woman.[6] Before the 1918, the activities of Živena were limited only on the town of Turčiansky Svätý Martin, a centre of traditionally protestant region of Turiec. However, since 1914, the anti-war rhetoric found supporters in multiple non-dominant nationalities of the Hungary.[7]

2.1 Women's Associations and Jewish Minority

At this time a phenomenon rather specific for Slovak women's movement appears - the involvement of Jewish women in Christian-based or non-confessional organisations.[8] In the census of 1921, for the first time there was an option to declare a Jewish nationality (2,3% of Czechoslovak inhabitants) beside Jewish religion (4,53%).[9] Especially in the Western and Central Slovakia, there was a prevalence of the Neolog Jews, who were usually middle- and upper-class and were successfully integrated into the society.[10] Paradoxically, this involvement was common almost exclusively in urbanized areas with significant Jewish communities, such as Bratislava, Žilina or Košice; women in rural regions, where Jews were considered outcasts, were not interested in cooperating with them. However, in 1938 with the rise of antisemitism in Slovak society related to the rise of radical Slovak nationalism, the anti-Jewish sentiments became noticeable even in the women's movement, which led to the expulsion of the Jewish women from the associations including Živena.[11] After the First Vienna Award, the regions with percentually highest number of the Jewish population were assigned to Hungary, and thus any possibility of their involvement in Slovak public life, even

---

Stehlík. *Národnostní menšiny v Československu 1918–1938. Od státu národního ke státu národnostnímu?* (Prague: Univerzita Karlova v Praze, Filozofická fakulta, 2012), p. 24-25.

[4] *Československá statistika – svazek 9. Sčítání lidu v republice Československé ze dne 15. února 1921* (Prague: [s.n.], 1924), p. 60.

[5] Vajanský considered women's emancipation "the most hideous development (...) that murders feminity in a woman and (...) kills the family." Svetozár Hurban-Vajanský. Reč tajomníka na XXIII. Valnom shromaždení „Živeny" 6. augusta 1902. In Národnie noviny, v. 33, N 91 (7.8.1902).

[6] Jitka Malečková. Úrodná půda: žena ve službách národa. (Prague: ISV, 2002), p. 94.

[7] e.g. Na udržanie Živeny. In Živena, č.3, roč. 9 (March 1918), p. 48.

[8] Archív literatúry a umenia SNK Martin, fond Živena, sg. 216 FN 3.

[9] *Československá statistika – svazek 9. Sčítání lidu v republice Československé ze dne 15. února 1921*, p. 60.

[10] For example in the industrial Northern-Central town of Žilina, approximately 90 % of the Jews belonged to the Neolog community. On the other hand, in the Eastern Slovakian town of Michalovce, almost all of the Jews, who accounted for one third of all the residents, were Orthodox. Ministerstvo vnútra Slovenskej republiky, Štátny archív v Bytči – pobočka Žilina, fond Veľkej obce Žilina 1923-1945, škatuľa č. 109, sg. 2890/29; *Encyklopédia židovských náboženských obcí L–R (II. zväzok).* (Bratislava: SNM – Múzeum židovskej kultúry 2010), p. 56–64.

[11] e.g. 25 rokov miestneho odboru Živeny v Žiline. Žilina: Vlastným nákladom, 1947, p. 17.

in cases of less nationally-oriented associations (e.g. womens section of the Communist Party of Czechoslovakia), ceased.

2.2 Women's Associations and German Minority

Rather specific was also the situation of German minority. As opposed to Sudeten Germans in the Czech Lands, German community in Slovakia consisted mostly of Carpathian Germans, who came to Bratislava and the mining regions of Central Slovakia and Spiš from 12th to 18th century.[12] After 1918 the Germans were distinctly reluctant to participate on the public life of the new republic outside their own community. This reluctance included any kind of cooperation with Slovak women's associations, especially Živena. For example, the Vocational School for Women's Occupations in Bratislava, before 1918 frequented mostly by German and Hungarian working-class girls, was suddenly after the establishment of Czechoslovakia put under the supervision of the local branch of Živena and heavily promoted as a school that would "raise Slovak girls into virtuous, skilled and diligent housewives and brave daughters of the homeland and the nation."[13] Neither German nor Hungarian students were interested in being integrated into the Slovak ideal of woman and apparently aggressive actions of Živena (German and Hungarian girls reluctant to participate on nationally oriented activities were punished or bad-mouthed as lazy and unfit for work) caused that they decided to switch to more distant and less prestigious school of the same kind, with bigger percentage of non-Slovak students.[14] Even in the institution of higher educations frequented my middle class, like grammar schools with women's associations involved being significantly more conservative than already moderate Živena, it is notable that Germans as well as Hungarians refused to learn Slovak language.[15] In other regions Germans started their own, exclusively German women's associations and organisations when it became obvious that Slovak women were gaining influence in the public discourse.[16]

What is, however, rather surprising, is the fact that not the whole community of Carpathian Germans shared this view. It was especially the Germans from the Western Slovakia (outside of Bratislava), who arrived to the region in the last wave of colonisation and were usually of various protestant religious denominations. These were unusually active in protestant women's associations. As for the reason for this discrepancy, the protestant associations were explicitly multinational. As an example, the Marienka Zochova's Society of Wives of protestant Priests, which included Protestant communities all across Slovakia, treated its Slovak, German and Hungarian members equally, to the point when the publications of the society were published tri-lingually.[17] Notably participating and numerous were German and Protestant communities from Modra and Pezinok with significant number of members of these communities in the leadership positions in the society[18].

---

[12] Milan Olejník. Administratívno-právne a hospodárske aspekty prínosu nemeckej menšiny k formovaniu multietnickej spoločnosti na Slovensku. In: Človek a spoločnosť, v. III/ 2000/ N 3, no paging.

[13] Výročná zpráva Odborná škola pre ženské povolania v Bratislave za školský rok 1937/38 (Bratislava: Novina, 1938), p. 6.

[14] Ibid.

[15] V. výročná zpráva Československ. štátneho reálneho gymnázia v Bratislave za školský rok 1923-1924 (Bratislava: Ján Pocisk a spol., 1924), p. 6.

[16] Okresný úrad Veľká Bytča, škatuľa 166, 1 7080/36.

[17] Pamätnica spolku žien evanjelických farárov "Marienky Zochovej." 1939, p. 35.

[18] Ibid., p. 38.

2.3 Women's Associations and Hungarian Minority

According to the census of 1921, the Hungarian minority accounted for 5,47 % of all the citizens of Czechoslovakia.[19] However, despite the seemingly low number, especially in comparison to the Jews and the Germans, the relations between Hungarians and Slovaks were particularly complicated. As a result of a period of intense magyarization, Slovak nation completely lacked intelligence and the educated middle class was severely limited, while the Slovak higher class was non-existent, since before 1918, the only way to gain higher education, government job and social status was to speak Hungarian and citizens engaging in the pro-Slovak activities were likely to be persecuted.[20] In 1918, the Czechoslovakia was established within borders following not the ethnic principle, but the historical borders of Slovak counties. As a result, the regions with vast majority of Hungarian inhabitants became part of a state where they were a minority, the status which was later confirmed by the Trianon Treaty of 1920.

Like the German minority that was generally, at least until the rise of German nationalism in the second half of the 1930s, uninterested in Slovak public affairs, Hungarian women in Slovakia were traditionally united under branches of originally Hungarian women's associations. It must be noted that in the regions, where the percentage of Hungarians was significant and they played an important role in the public discourse, Slovak women tended to join these associations, as they felt they were not only more relatable in the multiethnic society than the nationally oriented Slovak ones, but tended to be more progressive than the conservative Slovak associations promoting the traditional image of woman as a caregiver and a housewife rather than the image of emancipated, employed and active woman that was becoming a norm especially for the middle class. Especially Živena had been making repeated efforts to reach women from these regions in hopes to positively influence the Slovak national identity,[21] however these attempts were usually short-lived and unsuccessful for the lack of interest.[22] On the other hand, just like in the case of German women, the Protestant women were cooperating with the Slovak ones and it is even explicitly stated that the cooperation is unproblematic and the past is put behind them in order to work for the Church and the women.[23]

3 CONCLUSION

The history of women's emancipation movement in Slovakia is much shorter that is the case of other nations of the Central Europe; in comparison, the Slovak women were conservative in the matters of women's role in the public discourse, in the household and in the national movement. A woman was always limited by her perceived role as a mother and a housewife, her public activities were considered appropriate only if they imitated this role, e.g. education or social work. In the multinational society of multiple Slovak regions, it was difficult for Slovak women's movement to find sufficient member base to enable it to become an influential actor in the public discourse in order to promote its ideas. However, the efforts in cooperation with the national minorities bore limited results, as it was difficult to identify with their image of woman that was specifically applicable mostly in the low-income, rural Slovak society. For that reason Živena as the biggest Slovak women's association, failed to broaden its influence to nationally-diverse regions.

---

[19] *Československá statistika – svazek 9. Sčítání lidu v republice Československé ze dne 15. února 1921*, p. 60.

[20] Robert Bideleux and Ian Jeffries. *A History of Eastern Europe: Crisis and Change* (London: Routledge, 1998), p. 255.

[21] Zpráva o činnosti Živeny, spolku slovenských žien, za správny rok od 1. januára do 31. decembra 1927. In Živena,v. 18,N 1 (January 1928), p. 23.

[22] ALU SNK Martin, fond Živena, sg. 216 FN 5

[23] Pamätnica spolku žien evanjelických farárov "Marienky Zochovej," p. 43.

On the other hand, religion-based associations were often based on the principle of complete equality of nationalities. It was the case of protestant societies, and it is debatable whether the decisive factor of this cooperation was the common sense of being an outcast in mostly Catholic Slovakia.
Despite this possibility, it can be definitely concluded that while nationality was a divisive factor in the cooperation of women's movement, religion – especially the Protestant denominations, as the Catholic women's associations were generally only Slovak since most of the ethnic minorities were not Catholic[24] - was the point of connection between the ethnic majority and the minorities. However, the surge of nationalism in the late 1930s tore this point of cooperation apart and the minorities started to prefer to focus on the nationality as their primary identity, which included the perception of woman as a vital link in the nationalist propaganda.

Bibliography

1. Archív Literatúry a umenia Slovenskej národnej knižnice (ALU SNK)
   Fond: Živena, č. fondu 216.
2. Štátny archív v Bytči – pobočka Žilina
   Fond: Obecný úrad Žilina (1896) 1923–1945 (1958).
   Fond: Okresný úrad Veľká Bytča.
   Fond: Veľká obec Žilina (1920) 1923–1945 (1949).
3. Oblastný archív Bratislava
   Fond: Výročné správy stredných škôl Bratislava
4. Národnie noviny. Martin, 1870-1947
5. Živena: illustrovaný časopis: orgán „Živeny," spolku slovenských žien. Turčiansky Svätý
6. Martin: Kníhtlačiarsky účastinný spolok, 1910-1948.
7. Československá statistika – svazek 9. Sčítání lidu v republice Československé ze dne 15. února 1921. Praha: [s.n.], 1924.
8. BIDELEUX, R., JEFFRIES, I.: A History of Eastern Europe: Crisis and Change. London: Routledge, 1998.
9. DUDEKOVÁ, G.: Vplyv Veľkej vojny a rozpadu Habsburskej monarchie na právne a spoločenské postavenie žien. In KOSTRBOVÁ, L., MALÍNSKÁ, J. et al.: 1918. Model komplexního transformačního procesu? Praha: Masarykův ústav a Archiv AV ČR, 2010.
10. Encyklopédia židovských náboženských obcí L–R (II. zväzok). Bratislava: SNM – Múzeum židovskej kultúry 2010.
11. MALEČKOVÁ, J.: Úrodná půda: žena ve službách národa. Praha: ISV, 2002.
12. OLEJNÍK, M.: Administratívno-právne a hospodárske aspekty prínosu nemeckej menšiny k formovaniu multietnickej spoločnosti na Slovensku. In: *Človek a spoločnosť*, roč. III/ 2000/ č. 3.
13. TÓTH, A., NOVOTNÝ, L., STEHLÍK, M.: *Národnostní menšiny v Československu 1918–1938. Od státu národního ke státu národnostnímu?* Praha: Univerzita Karlova v Praze, Filozofická fakulta, 2012.

Kontaktní údaje

Mgr. Michaela Smidová
Univerzita Karlova, Filozofická fakulta, Ústav hospodářských a sociálních dějin
Náměstí Jana Palacha 2, Praha 1, 116 38
Tel: 728 632 612, email: smidova.michaela@gmail.com

[24] OÚ v Žiline, 2 9830, III., 9/V.

MESTSKÉ PRÁVO = NEMECKÉ PRÁVO?

MUNICIPAL LAW = GERMAN LAW?

Terézia Hišemová

Abstrakt

Autorka sa v príspevku zameriava na dva ústredné pojmy a to nemecké právo a mestské právo, ktoré sa zvyknú stotožňovať. Autorka chce oba tieto pojmy od seba striktne oddeliť a poukázať na ich samostatnosť a neodôvodnenosť ich častého synonymizovania. Príspevok sa tiež okrajovo venuje vzniku miest a to nielen v Uhorsku, ale na území strednej Európy. V závere príspevku je venovaný priestor aj vybraným článkom tretej časti Zbierky tavernikálneho práva, konkrétne závetom.

Kľúčové slová: *Nemecko, Uhorsko, kolonisti, privilégiá, mestské právo, závet*

Abstract

The author in this paper focuses on two central concepts and German law and municipal law, which tend to identify himself. The author wants both of these concepts to be strictly separated from each other, pointing to their independence and the unreasonableness of their frequent synonymization. The contribution is also devoted to the creation of cities and not only in Hungary. At the end of the paper is devoted also space to the selected article of the third part of the Collection of Tavernier Law, namely the testament.

Key words: *Germany, Hungary, colonists, privileges, municipal law, testament*

ÚVOD

V povedomí širšej verejnosti či už neodbornej, ale aj odbornej, prevláda názor, že mestské právo je v podstate len súhrn pravidiel správania sa, ktoré mestá prevzali od nemeckých miest, alebo je to právo, ktoré so sebou priniesli nemeckí kolonisti na naše územie kde zakladali mestá a uplatňovali v nich svoje právo bez nejakých zmien. Cieľom tohto príspevku je bližšie ozrejmiť pojem mestské právo, ako aj proces jeho vývoja a zdôrazniť že mestské právo sa nemôže v žiadnom prípade stotožňovať s právom nemeckým. Taktiež chce pozdvihnúť význam vtedajšieho domáceho obyvateľstva a úlohu miest v oblasti práva.

1 PRÍCHOD KOLONISTOV DO UHORSKA

13. storočie je pre Uhorsko významným storočím, práve v tomto čase dochádza k silnému hospodárskemu, sociálnemu, ale aj kultúrnemu rozvoju. Nastáva rozmach obchodu, baníctva, remesiel a poľnohospodárstva. To všetko umožnilo, resp. plynule vyústilo do rozvoja sídel a teda toto obdobie je charakteristické vznikom a rozvojom mnohých miest. K tomuto rozvoju pomohli aj hostia/kolonisti/cudzinci (lat. *hospites*) prichádzajúci najmä, ale nielen, z nemeckých krajín. Títo hostia prichádzali z hospodársky, spoločensky a kultúrne vyspelejších krajín, a prinášali so sebou nielen nové technologické postupy či už v oblasti poľnohospodárstva alebo remesiel,[1] ale riadili sa svojim vlastným právom, keďže tunajšie uhorské právo nepoznali.

[1] LEHOTSKÁ, Darina. Vývoj mestského práva na Slovensku. In *Historica Sborník filozofickej fakulty Univerzity Komenského*, roč. 10, 1959. s. 68.

Problematikou osídľovania nášho územia nemeckými kolonistami sa zaoberá viacero štúdií.[2] Po vpáde Tatárov a ich následnom odchode ostala krajina spustošená a preto boli cudzinci vítaní osídľovať vyľudnené územia. Panovník, ktorý chcel znova zaľudniť a obnoviť územia, cudzincom udeľoval mnoho výsad, a tak títo cudzinci mohli používať osobitné právo, ktoré bolo odlišné od vtedajšieho uhorského práva.[3] Toto osobitné právo bolo vlastne súhrnom právnych noriem, zvyklostí, ktorými sa títo hostia riadili vo svojej pôvodnej vlasti, no bolo obohatené o viaceré výsady hospodárskeho charakteru, ktoré mali zabezpečiť výhodnejšie podmienky pre ich život na novom mieste, nielen s ohľadom na okolité neprivilegované obyvateľstvo, ale aj na ich sociálne postavenie doma a tým ich doslova prilákať k presťahovaniu sa do kraja, kde boli pozvaní.[4]

2 VZNIK MIEST A MESTSKÉHO PRÁVA

Nemôžeme povedať, že mestské právo priniesli so sebou nemeckí kolonisti a taktiež, že vďaka nim vznikajú na území Uhorska mestá. Vznik miest a mestského práva bol výsledkom doby. V Nemecku v 12. storočí taktiež ešte neexistujú mestá s vlastnou samosprávou.[5] Prvé samosprávne mestá v rámci strednej Európy, a to v Nemecku, Rakúsku a Švajčiarsku vznikajú až v 13. storočí.[6] Proces vzniku sídlisk spočíval predovšetkým na osadníkoch domáceho pôvodu. Je nevyhnutné zdôrazniť, že účasť nemeckých kolonistov na budovaní mnohých nových sídlisk podľa nemeckého práva bola malá a častokrát spočívala len v osobe lokátora.[7]

Kráľ udeľoval spočiatku kolonistom výsady a tým položil pevný základ ich ďalšieho vývoja smerom k vytvoreniu mesta ako samosprávnej hospodársko-sociálnej jednotky.[8] Avšak nie každá lokalita, ktorej boli spočiatku udelené určité výsady sa vyvinula na mesto. Preto nemožno hneď hovoriť o mestskom práve,[9] ale práve tieto výsady a neskoršie privilégia možno oprávnene považovať za základ mestského práva. Právny základ každého mestského práva nachádzame v prvotných mestských privilégiách, ktoré boli udelené jednotlivým mestám s rôznym, ale neskôr aj podobným, obsahom. Mestské právo je však pojem podstatne širší a medzi jeho pramene zaradzujeme aj dekréty, štatúty a v neposlednom rade obyčaje.

---

[2] Za asi najvýznamnejšiu prácu považujeme KAINDL, R. F. *Geschichte der Deutschen in den Karpathenländern*. II. Gotha 1907; Zo slovenských príspevkov spomenieme aspoň: KRIŽKO, P. Nemecké osady na Slovensku. In *Slovenské pohľady*. 1882, 2, s. 113-120.; LEHOTSKÁ, Darina. Nemecká kolonizácia a Turci. In *Historický zborník*. 1945, III, s. 1-42.; RÁBIK, Vladimír. Nemecké osídlenie na území Zvolenskej župy v stredoveku. In *Historický časopis*. 2001, roč. 49, č. 1, s. 37-62.

[3] LACLAVIKOVÁ, Miriam. – ŠVECOVÁ, Adriana. *Pramene práva na území Slovenska I. Od najstarších čias do roku 1790*. Trnava : Typi Universitatis Tyrnaviensis, 2007 s. 385.

[4] MAREK, Miloš. Postavenie hosťov v stredovekom Uhorskom kráľovstve. In *Historický zborník*. roč. 12, č. 1-2. s. 14.

[5] HALAGA, Ondrej Richard. Mestotvorný proces a stredná Európa. In *Historica Sborník filozofickej fakulty Univerzity Komenského*. 1964, roč. 15, s. 106.

[6] KLUKNAVSKÁ, Andrea. – GÁBRIŠ, Tomáš. Mestské právo ako dynamický prvok vývoja práva v Uhorsku. In *Městské právo ve střední Evropě. Sborník příspěvku z mezinárodní právnické konference „Práva městská Království českého“ z 19. -21. září 2011*. Praha : Karolinium, 2013. s. 214.

[7] RÁBIK, Vladimír. Problematika výskumu nemeckého osídlenia Slovenska v stredoveku. In *Studia Historica Tyrnaviensia*, 2002, roč. 2, s. 122.

[8] KLUKNAVSKÁ, Andrea. – GÁBRIŠ, Tomáš. Mestské právo ako dynamický prvok vývoja práva v Uhorsku. In *Městské právo ve střední Evrope. Sborník příspěvku z mezinárodní právnické konference „Práva městská Království českého“ z 19. -21. září 2011, Praha*. Praha : Karolinium, 2013. s. 211.

[9] MAREK, Miloš. Právne postavenie hosťov v stredovekom Uhorskom kráľovstve. In *Historický zborník*, 2002. s. 17.

3 MESTSKÉ PRÁVO = NEMECKÉ PRÁVO

Skutočnosť, že mestské právo sa častokrát zamieňa s právom nemeckým, spočíva v delení mestského práva na právo Magdeburské (severonemecké) a Norimberské (juhonemecké), avšak toto delenie má zmysel predovšetkým v Nemecku, kde sa mestské právo vyvíjalo v dvoch veľkých oblastiach, od 12. storočia na severe a od 13. storočia aj na juhu. Prvá kodifikácia severonemeckého práva sa uskutočnila v meste Lübeck v roku 1163, ale najvyspelejšiu podobu dostalo toto právo v Magdeburgu a Halle.[10] Najstarší doklad o norimberskom mestskom práve je z roku 1219.[11] Norimberské mestské právo bolo ako prvé nemecké právo vydané tlačou v roku 1484.[12] Toto nemecké mestské právo sa šírilo vďaka pohybu ľudí priamo, ale aj nepriamo z mesta do mesta, a tak sa dostalo aj do Uhorska a teda aj na územie Slovenska. V Uhorsku sa objavujú obe podoby nemeckého mestského práva, najvýznamnejším uhorským mestom, ktoré sa zvykne zaradzovať do skupiny miest s „magdeburským právom" je Stoličný Belehrad a zo slovenských miest sa tu zaradzuje Trnava, naopak k skupine miest s „norimberským právom" sa zaradzuje Budín a zo slovenských miest sú to Košice.

Takéto striktné delenie je podľa nášho názoru neúplné a nesprávne. Mestské právo sa síce utvorilo na základe prvotných mestských privilégií, ktoré boli inšpirované aj pôvodným nemeckým mestským právom, ale značná časť bola pôvodným výtvorom, navyše ak sa mestské právo šírilo od jedného mesta k druhému, tak sa častokrát ak nie vždy, aspoň sčasti odklonilo. Pre mestá na území Uhorska je charakteristická originálna tvorba mestského práva. Je potrebné si uvedomiť podstatný historický znak, ktorý sprevádzal a ovplyvňoval vývoj práva dlhé obdobie, a tým je právny partikularizmus, čiže rozdrobenosť a nejednotnosť práva. V mestách sa na právnej anabáze prvotného mestského privilégia postupne vytvára domáce mestské právo, ktoré je rozširované ďalšími privilégiami a v slobodných kráľovských mestách aj vlastnou štatútotvornou činnosťou.

Aj Budín, ktorý ako sme už spomínali, sa zvykne zaradzovať k mestám s norimberským mestským právom, pretože jeho základ stojí na juhonemeckom práve, avšak v roku 1421 má Budínske mestské právo spísané v mestskej knihe nadpis *Rechtspuech nach Ofner Stat-Rechten, welches inetlichen Dingen und Stugken Maidpurgerischen enthelet*, čo značí, že Budín prešiel od norimberského práva k právu magdeburskému.[13] Košice, ktoré boli neskôr druhým najvýznamnejším mestom v Uhorsku, hneď po Budíne, preberali množstvo právnych noriem od Budína a teda podobne ako aj v Budíne, tak aj v Košiciach dochádza k stretu severonemeckého a juhonemeckého mestského práva, ale ako sme už spomínali mestské právo uhorských miest netvorilo len nemecké právo. Mestá ako vidíme mohli používať práva dvoch oblastí a mnoho miest, preberalo právo viacerých miest, čo ale nemuselo znamenať automaticky ich rozpornosť, najmä v prípade ak neupravovali rovnakú oblasť právnych vzťahov.

Na tomto mieste je vhodné spomenúť ešte pojem *Jus Teutonicum*, ktorý sa zvykne prekladať ako nemecké právo a ktorý sa po prvýkrát objavuje na území východnej kolonizácie v štaufskom období (1138-1254). *Jus Teutonicum* znamená pôvodne predovšetkým právo

[10] LEHOTSKÁ, Darina. Vývoj mestského práva na Slovensku In *Sborník filozofickej fakulty Univerzity Komenského*, 1959, roč. 10, s. 78.

[11] MENDL, Bedřich. *Tak řečené norimberské právo v Čechách*. Praha : Česká akadémia vied a umenia, 1938. s. 45.

[12] MENDL, Bedřich. *Tak řečené norimberské právo v Čechách*. Praha : Česká akadémia vied a umenia, 1938. s. 46.

[13] KLUKNAVSKÁ, Andrea. – GÁBRIŠ, Tomáš. Mestské právo ako dynamický prvok vývoja práva v Uhorsku. In *Městské právo ve střední Evrope. Sborník příspěvku z mezinárodní právnické konference „Práva městská Království českého" z 19. -21. září 2011, Praha*. Praha : Karolinium, 2013. s. 243.

klčovať lesy a zakladať nové osady, spojené s právom na slobodnú dedičnú držbu a nájom pôdy.[14]

4 MESTSKÉ PRÁVO

Mestské právo môžeme definovať ako právo, ktoré užívali obyvatelia mesta, ktorému podliehali a ktorým sa spravovali v rôznych prípadoch súkromného i verejného života. Prameňom tohto práva boli predovšetkým listiny, ktorými vrchnosť buď udeľovala mestu a jeho obyvateľom jednotlivé nové práva, alebo uznávala a potvrdzovala dovtedajšie právne zvyklosti. Nepísaným pravidlom, resp. znakom mestského práva bolo, že lokalita v ktorej sa používalo, teda mesto bolo známe ako zvláštna právna oblasť a že jeho obyvateľom bolo priznané osobitné právne postavenie.[15]

Skutočnosti, že mestské právo nie je totožné s nemeckým právom, nasvedčuje aj fakt, že, mnoho miest malo akoby iné, vlastné právo, čo sa neskôr ukázalo ako určitá prekážka, dnes by sme to mohli nazvať jednoducho právnou neistotou. To, čo bolo najprv považované za určité privilégium – riadiť sa iným právo ako iní, sa v neskoršom období javí ako problém, preto začali existovať snahy o unifikáciu a zjednotenie mestského práva. Na území Českého kráľovstva tieto snahy vyústili až do prijatia zbierky mestského práva *Práva městská Království Českého* v roku 1579, ktoré platilo na území celého kráľovstva.[16] V Uhorsku až k takejto veľkej udalosti nedošlo, ale aj tu sa určité mestá spájajú a zjednocujú. Veľmi významný bol spolok 24 spišských miest, ktorý vznikol už na podklad privilégia kráľa Štefana V. z 24. novembra 1271.[17] Zozbieraním vlastného štatutárneho práva vznikla asi v roku 1370 právna kniha označovaná ako *Willkür der Sachsen in der Zips*,[18] spočiatku obsahujúca 95 článkov, ktoré boli neskôr dopĺňané. Toto spoločenstvo bolo silné, čo dokazuje aj skutočnosť, že sa právna prax týchto miest nerozišla ani po tom, čo Žigmund Luxemburský dal v roku 1412 trinásť miest z tohto spoločenstva do zálohu Poľsku.[19] Podobne aj banské mestá Smolník, Rudno, Jasov, Rožňava, Nová Ves, Telkibaňa s Gelnicou na čele uzavreli v roku 1487 v Košiciach zmluvu, ktorou vytvorili spolok miest, ktorého hlavnou úlohou bolo zjednotenie súdnej praxe a Gelnica mohla vytvárať štatúty zaväzujúce všetky mestá a taktiež mala funkciu hlavného mestského súdu. Ďalšia skupina banských miest pod vedením Banskej Štiavnice spolu s Banskou Bystricou, Kremnicou, Pukancom, Ľubietovou, Novou Baňou a Belou tiež vytvorila vlastný spolok, za účelom zjednotenia súdnej praxe a štatutárneho práva.[20] Pre nás je najzaujímavejším spojenie tavernikálnych miest[21], ktoré mali cieľavedomé úsilie o unifikáciu mestského práva v ktorom videli dôležitý prostriedok upevňovania súdneho i správneho autonómneho postavenia týchto hospodársko vyspelých a politicky významných miest. Zbierka tavernického práva pôvodne siedmich slobodných kráľovských

---

[14] PAPSONOVÁ, Mária. *Sasko-Magdeburské právo na Slovensku. Krajinské právo v Žilinskej knihe*. Žilina : Eurokódex, 2014. s. 11.

[15] MENDL, Bedřich. *Tak řečené norimberské právo v Čechách*. Praha : Česká akadémia vied a umenia, 1938. s. 44.

[16] MALÝ, Karol. a kol. *Práva městká Království českého. Edice s komentářem*. Praha : Karolinium, 2013. s. 11.

[17] MEIER, J. Stadtrechtslandschaften und Städtebunde in Ungarn. In FETKO, F. – ŠTEVÍK, M. (zost.) *Pocta Ivanovi Chalupeckému. Zborník príspevkov k slovenským dejinám vydaný pri príležitosti osemdesiatin doc. PhDr. Ivana Chalupeckého.* Levoča : Spišský dejepisný spolok, 2012. s. 45.

[18] VYKOUPIL, S. *Slowakei*. [online]. Munchen : Verlag C.H. Beck, 1999. s. 69. [cit. 2017-09-24] Dostupné na: <https://books.google.sk/books?id=DuqqpxK11yMC&printsec=frontcover&hl=sk#v=onepage&q&f=false>.

[19] LUKAČKA, Ján. a kol. *Chronológia starších slovenských dejín*. Bratislava : Historický ústav SAV a Prodama, 2008. s. 78.

[20] LUBY, Štefan. *Dejiny súkromného práva na Slovensku*. Bratislava : Iura edition, 2002. s. 81.

[21] Tavernikálne mestá boli významné hospodárske a politické slobodné kráľovské mestá Uhorska, ktoré od vrcholného stredoveku patrili pod druhostupňový apelačný súd taverníka – jedného z popredných kráľovských sudcov a súdov krajiny. Na začiatku 19. storočia ich už bolo dvadsaťštyri.

miest predstavuje doklad unifikácie mestského práva tavernických miest premietnutý do úspešného zjednotenia súdnej praxe tavernického súdu.[22] Text najstaršieho rukopisného zachovania, tzv. nyergesújfalského rukopisu z roku 1484 (toho času stratený) publikoval M. J. Kovachich pod názvom Vetusta iura civitatum sive iura civilia.[23]

5 ZBIERKA TAVERNIKÁLNEHO PRÁVA – VYBRANÉ ČLÁNKY

Jedna z častí Zbierky tavernikálneho práva pojednáva o závetoch a v tejto záverečnej časti príspevku si dovolíme prezentovať v krátkosti vybrané články z tohto dielu, ktoré nás zaujali a ktoré môžeme označiť pojmom mestské právo, ale určite nie pojmom nemecké právo.

Je celkom pochopiteľné a neprekvapujúce, že jednou z oblastí, ktoré považovali tavernikálne mestá za dôležitú a potrebnú zjednotiť bola práve aj oblasť závetov. Smrť sa týka každého človeka, šľachtica, mešťana, jednoduchého roľníka či chudáka. Rozdiel spočíva iba v tom, čo po človeku ostane, odhliadnuc od povesti, skutkov a spomienok na človeka, ostane po ňom aj niečo materiálne či už vo väčšom alebo menšom množstve (či už aktíva alebo pasíva), čo za svoj život nahromadil. Mnoho ľudí nerieši ani neriešilo čo bude s týmto majetkom, ako a medzi koho sa prerozdelí, avšak existuje a aj existovala skupina ľudí, ktorí chceli určiť čo bude s ich bohatstvom aj po ich smrti a práve preto spisovali závety, a aby závety neboli spochybňované, a aby sa na ich základe skutočne vôľa závetcu splnila, boli potrebné určité pravidlá. V nasledujúcej krátkej časti odprezentujeme vybrané články z tretej časti zbierky, ktorej prepis archívneho materiálu v starej nemčine je dostupný ako príloha v knihe Štefánii Mertanovej *Ius tavernicale*. Svojpomocný preklad nie je prekladom fundovaného odborníka, ale podstatu jednotlivých článkov dostatočne vystihuje. Tretia časť venujúca sa závetom má 21 článkov.

Hneď v prvom článku je vymedzené ako môže niekto nehnuteľné majetky, ktoré získal svojou prácou, poručiť niekomu inému proti zákazu jeho priateľov/príbuzných.[24]

Druhý článok hovorí o starootcovskom a otcovskom podiely, ktorý má pripadnúť podľa dedičského práva po smrti manželke a deťom a ich dedičom, v prípade ak ho nebude musieť použiť v prípade núdze.[25]

Piaty článok hovorí o tom, že ak je dedičstvo odkázané nejakému mužovi, on má nad nimi moc, komu ich chce prideliť, ak zanechá závet má plnú moc dedičné majetky odkázať, dať alebo zanechať podľa svojej vôle. [26] V tomto článku sa vyslovene hovorí o závete.

---

[22] LACLAVIKOVÁ, Miriam. – ŠVECOVÁ, Adriana. *Pramene práva na území Slovenska I. Od najstarších čias do roku 1790.* Trnava : Typi Universitatis Tyrnaviensis, 2007. s. 400.

[23] MERTANOVÁ, Štefánia. *Ius Tavernicale. Štúdie o procese formovania práva tavernických miest v etapách vývoja tavernického súdu v Uhorsku (15.-17. stor.).* Bratislava : Veda, 1985. s. 38.

[24] *Volgen die dritte Tractirung von den Testament- ordnungen, und erstlich, das ein ieder mag unbewegliche Gütter, die er mit seiner Arbeit erworben, wem er will legiren wider das Verbot aller nechsten Freunde. – Item so iemand Erbschafften hat oder unbewegliche Güter, wie die nun sein wollen, die oder weche er mit seiner eigeben Arbeit, Mühe und Expens erworben, ohne Verhinderung des Weibes, Kinder, Brüder, Schwester und anderer Blutsfreunde, hate r freywillige Macht von denselbigen zu verlassen, zu geben und zu legiren beide beim Leben, als im Sterben, wem er will, ohne Verhinderung allerley Verbot, die da geschcehen sindt oder geschhen sollen.*

[25] *Das Grossvätterlich und vätterlich Erbgut aufs Weib und Kinder gerathen – Item so iemand grossvätterlich oder vätterliche Erbschaff hette unnd durch Noth nicht bedrungen und in dem Fahl, das ers nicht zur Erledigung seines Kopfs hat müssen dargeben, so er all sein Lebtag derselben Erbschafft gebraucht hette, alsdann gerathen die neblichen Erbschafften aufs Weib, Kinder und die er zu Erben haben wirdt, nach erblichen Rechte.*

[26] *Das die Erbschafften so irgendteinen Mann legirt werden, er von denselben Macht hat, wem er willzuverordnen – Item so ein Manne, gottgeb welches Weibes von seinen Eltern Erbgütter hette, oder andere Ding, welche oder wie die nun sein mögen, ein Testament legiret, soll er dergleichen volle Macht haben dieselbigen zu legiren, zu geben und nach seinen Wolgefallen zu verlassen, beyde beim Leben, als im Sterben.*

Tretí článok hovorí o svadobnom dare/vene, ktorým je nehnuteľnosť, ktorú dá muž svojej žene, alebo jej ju prisľúbi v prítomnosti vierohodného občana. Túto nehnuteľnosť už nemôže sám scudziť, darovať ani odkázať, keďže darovaním prešlo na manželku vlastnícke právo.[27] Existuje však výnimka, ktorá je ustanovená v trinástom článku, ktorý hovorí o cudzoložnej žene, ktorá nemôže urobiť závet o svojich majetkoch, ale tie všetky pripadnú jej manželovi, pretože ona nemôže urobiť nijaký testament, lebo pre spáchanie hriechu stratila všetko právo, ktoré mala na dedičný majetok aj na hnuteľné majetky.[28] Ako môžeme vidieť život ľudí bol tak silno prepojený s vierou v Boha a Katolíckou cirkvou až to ovplyvňovalo právne normy a správanie sa, ktoré nebolo v súlade s Božími prikázaniami malo aj následky v obmedzovaní dispozície s vlastným majetkom. Článok štrnásť pojednáva o tých, čo si málo vážia kresťanskú vieru a chvália vieru Turkov a o rozkolníkoch, ktorí nemajú právo mať nič z otcovských majetkov. Pretože, ak by nejaký muž vo svojom závete zanechal synom alebo synovi zo svojho dedičského majetku a hnuteľných vecí, a títo alebo tento, by sa s týmito hnuteľnými majetkami odobral k nevernému národu, pridŕžal sa ho alebo sa s nimi spolčil, ako sú totiž Turci a nevážil si kresťanskú vieru, ale chválil tieto nesprávne sekty, takémuto sa nemá poručiť ani zanechať podiel, ale ak má rodných bratov, má sa podiel dať do vlastníctva iným pokrvným príbuzným, ktorí vedú poctivý život.[29]

ZÁVER

Cieľ, ktorý sme si vytýčili na začiatku koncipovania tohto príspevku sme myslíme dostatočne naplnili a jasne od seba oddelili dva ústredné pojmy a to nemecké právo a právo mestské. Tieto dva pojmy nevyjadrujú to isté, aj keď nie je na mieste popierať ich akúkoľvek spojitosť, pretože jedno druhé ovplyvnilo. Rozdielnosť právnej úpravy na rôznych miestach sa postupne ukázala ako prekážka právnej istoty, ktorú sa neskôr snažili odstrániť nielen panovníci z pozície centrálnej moci, ale aj samotné mestá. Takýmto pokusom o odstránenie nejednotnosti je aj Zbierka tavernikálneho práva.

Príspevok vznikol v rámci projektu VVGS-2016-272: „Vymožiteľnosť práva v kontexte vývoja spoločnosti – právne, historické a politologické východiská a problémy aplikačnej praxe.“

[27] *Vom Manne, der seinem Weibe unbewegliche Gütter gibt zum Zeichen der Morgengab, welche von Stundt an das Weib angehören, nach erblichen Rechte – Item so einer ein Weib nemme und er zum Zeichen der Morgengab unbewegliche Gütter, nemblich, gottgeb was für Erbschafften in Gegenwart frommer Mitbürger seinem Weib gebe, oder zu geben verspreche, von denselbigen sll er hinforter keine Macht haben, zu geben oder zu verlassen oder zu legiren, sondern das Weib soll sie besizen mit steten erblichen Recht.*

[28] *Das ein hürisch Weib nicht ein Testament machen kann von ihren Güttern, sondern sie gefallen allzumahl auf ihren Mann – Item so ein Manne in Weib hette, die ein Hure und Ehebrecherin were unangelegen, das sie die beweglichen und unbeweglichen Güter zum Manne bracht hat, wofern nir diss durch ein Geschrey den Nachbarn zu Ohren bracht wird der Manne es selbs merckhete und sein Gewisen besorgete, so sie in ein Kranckheit fele, kann sie kein Testament machen, denn sie hat alles Recht, das sie in dem erblichen Gut gehabt und beweglichen Gütern aus Mittel des begangenen Lasters, wie vorbemeldet, verlohren, sondern die Güter sollen ohne Schaden auf den Mann gefallen.*

[29] *Das die so der Christenglauben gering achten und loben den Glauben der Türcken und der Spaltungstifter nichts haben sollen von vätterlichen Güttern – Item so irgendein Mensch in seinen Testament, denen Söhnen oder Sohne von seinen erblichen Gut und beweglichen Dingen etwas verliesse und der nemliche wolte sich mit denselbigen beweglichen Gütern zu einen untreuen Nation begeben, hienge derselben an unnd hielte mit ihr Gemeinschafft, als nemblich die da Vilephysten seindt, Spatungstiffter, Türcken und so er den Christlichen Glauben gering achten und dieselbige müssbreuchliche Secten preisen solte und geb für er wolle zwischen sie ziehen, ein solch Theil einen solchen legirt soll ihm nicht gelassen werden, sondern so er leibliche Brüder oder Schwestern haben würde, von den man sagt, das sie ein gutes Lob und ehrlich Leben führen. Soll mans denselben zutheilen und verzeichnen mit steten Recht zubesizen. So er aber nicht Brüder hat, so soll mans andern seinen Blutsfreunden, die ein ehrliches Leben führen,durch die That geben zu besitzen.*

Použitá literatura

1. HALAGA, O, R. Mestotvorný proces a stredná Európa. In *Historica Sborník filozofickej fakulty Univerzity Komenského*. 1964, roč. 15, s. 95-115.
2. KAINDL, R. F. *Geschichte der Deutschen in den Karpathenländern. Zweiter band.* Gotha : Friedrich Andreas Perthes, 1907. 421 s.
3. KLUKNAVSKÁ, A. – GÁBRIŠ, T. Mestské právo ako dynamický prvok vývoja práva v Uhorsku. In *Městské právo ve střední Evropě. Sborník příspěvku z mezinárodní právnické konference „Práva městská Království českého" z 19. -21. září 2011*. Praha : Karolinium, 2013. s. 208-278. ISBN 978-80-246-2113-5.
4. KRIŽKO, P. Nemecké osady na Slovensku. In *Slovenské pohľady*. 1882, č. 2, s. 113-120.
5. LACLAVIKOVÁ, M. – ŠVECOVÁ, A. *Pramene práva na území Slovenska I. Od najstarších čias do roku 1790*. Trnava : Typi Universitatis Tyrnaviensis, 2007. 415 s. ISBN 978-80-808-2153-1.
6. LEHOTSKÁ, D. Nemecká kolonizácia a Turci. In *Historický zborník*. 1945, roč. 3, s. 1-42.
7. LEHOTSKÁ, D. Vývoj mestského práva na Slovensku In *Historica Sborník filozofickej fakulty Univerzity Komenského*, 1959, roč. 10, s. 65-114.
8. LUBY, Š. *Dejiny súkromného práva na Slovensku*. Bratislava : Iura edition, 2002. 626 s. ISBN 80-89047-48-3.
9. LUKAČKA, J. a kol. *Chronológia starších slovenských dejín*. Bratislava : Historický ústav SAV a Prodama, 2008. 315 s. ISBN 978-80-969782-8-1.
10. MALÝ, K. a kol. *Práva městská Království českého. Edice s komentářem.* Praha : Karolinium, 2013. 784 s. ISBN 978-80-246-2117-3.
11. MAREK, M. Postavenie hosťov v stredovekom Uhorskom kráľovstve. In *Historický zborník*. roč. 12, č. 1-2. s. 13-23. ISSN:1335-8723.
12. MEIER, J. Stadtrechtslandschaften und Städtebunde in Ungarn. In FETKO, F. – ŠTEVÍK, M. (zost.) *Pocta Ivanovi Chalupeckému. Zborník príspevkov k slovenským dejinám vydaný pri príležitosti osemdesiatin doc. PhDr. Ivana Chalupeckého*. Levoča : Spišský dejepisný spolok, 2012.
13. MENDL, B. *Tak řečené norimberské právo v Čechách*. Praha : Česká akadémia vied a umenia, 1938. 139 s.
14. MERTANOVÁ, Š. *Ius Tavernicale. Štúdie o procese formovania práva tavernických miest v etapách vývoja tavernického súdu v Uhorsku (15.-17. stor.).* Bratislava : Veda, 1985. 254 s.
15. PAPSONOVÁ, M. *Sasko-Magdeburské právo na Slovensku. Krajinské právo v Žilinskej knihe*. Žilina : Eurokódex, 2014. 301 s. ISBN 978-80-8155-036-2.
16. RÁBIK, V. Nemecké osídlenie na území Zvolenskej župy v stredoveku. In *Historický časopis*. 2001, roč. 49, č. 1, s. 37-62.
17. RÁBIK, V. Problematika výskumu nemeckého osídlenia Slovenska v stredoveku. In *Studia Historica Tyrnaviensia*, 2002, roč. 2.
18. VYKOUPIL, S. *Slowake*i. [online]. Munchen : Verlag C.H. Beck, 1999. 172 s. ISBN 978-34-063-9876-6. [cit. 2017-09-24] Dostupné na: <https://books.google.sk/books?id=DuqqpxK11yMC&printsec=frontcover&hl=sk#v=onepage&q&f=false>.

Kontaktné údaje

JUDr. Terézia Hišemová
Univerzita Pavla Jozefa Šafárika v Košiciach
Právnická fakulta, Katedra dejín štátu a práva
Kováčska 26, 040 75 Košice
terezia.hisemova@student.upjs.sk, terezia.hisemova@gmail.com

ONYMICKÁ DYNAMIKA MESTSKÉHO SÍDLA VEREJNÝ PRIESTOR AKO PROSTRIEDOK LEGITIMÁCIE ŠTÁTNEJ MOCI

ONYMIC DYNAMICS OF A MUNICIPAL SEAT PUBLIC SPACE AS A MEANS OF LEGITIMIZING STATE POWER

Lenka Tkáč-Zabáková

Abstrakt

Štúdia je zameraná na systém pomenovania verejných priestranstiev v Nitre a jeho genézu. Jednotlivé skúmané etapy, do ktorých bol materiál rozdelený, sú individuálne analyzované a podrobené motivačnej a sémantickej klasifikácii. Materiál je extrahovaný zo záverečnej kvalifikačnej práce *Urbanonymia Nitry – analýza názvov ulíc v minulosti a dnes* (Tkáč-Zabáková, 2017). Táto vznikla v snahe definovať tendenčné zmeny v miestnej toponymii a odhaliť symbolický význam uličného názvoslovia na pozadí politickej ideológie a ďalších determinantov nominačného procesu.

Kľúčové slová: *toponymia, uličné názvoslovie, Nitra*

Abstract

This paper is devoted to the system of naming a public space in Nitra and its genesis. Each investigated phase, which all the researched material was divided into, is individually analysed and subjected to semantic and motivational classification. It is extracted from the thesis *Urban Names in Nitra – Analysis of the Past and Current Street Names* (Tkáč-Zabáková, 2017). This was created in order to define tendencies in changes of local toponymy and it reveals its symbolic meaning in the background of political ideologies and other determinants of the process of toponymic nomination.

Keywords: *toponymy, street names, Nitra*

1 ÚVOD

Proces pomenovania a následného premenovania objektov vo verejnom priestore je súčasťou integrálnych dejín sídel. Verejné priestranstvá reflektujú spoločenské, politické a demografické zmeny, ktoré sú predmetom štúdia viacerých humanitných a prírodných vied. Ich skúmanie je bezprostredne späté s vývojom mesta, regiónu, ale aj celého štátneho celku, v ktorom sa dané sídlo kedy rozvíjalo. Názvy objektov v katastroch miest v rôznych časových úsekoch predstavujú kultúrnu identitu obyvateľov ako užívateľov týchto priestranstiev. Vznik urbanoným, pomenovaní týchto priestranstiev, je zložitý, mnohými aspektmi determinovaný a komplexný proces.

Sémantická analýza, ktorej bolo podrobené uličné názvoslovie 5. najväčšieho slovenského mesta Nitra, nám umožnila vytvoriť akýsi exemplárny prierez onymickej dynamiky sídel na pozadí spoločensko-politických zmien v spoločnosti a v štáte. Výskum bol zameraný na koniec 19. st. a 20. storočie, kedy ideologické premeny vo verejnej správe tvorili hybnú silu mestskej toponymie. Toto obdobie prinieslo okrem vojenských konfliktov svetového významu aj ďalšie historické medzníky podstatné pre stredoeurópsky areál. Jeho priestorová lokalizácia medzi východnou a západnou sférou vplyvu počas studenej vojny spôsobila

špecifický geopolitický vývoj tohto regiónu. Tak ako mnohé iné oblasti spoločenského a kultúrneho života, aj verejný priestor sa stal jedným z prostriedkov prezentácie a upevňovania národných a národnostných iniciatív.
Každá nová politická orientácia priniesla so sebou nové symboly, motívy a im adekvátny ideologický výklad. Jednotlivé koncepty boli zapracované aj do každodenného života občanov novovzniknutých štátnych celkov, ako to bolo napr. po rozpade Rakúsko-Uhorska. Ďalšie mocenské zmeny v bývalom Československu, napr. nastolenie totality najprv západného a neskôr východného typu, opakovane menili charakter verejného priestoru prostredníctvom uličného názvoslovia. V kontexte nášho výskumu sme sa primárne zamerali na dynamiku urbanonymie vybraného mestského sídla za posledných približne 130 rokov, kedy viaceré politické tlaky pôsobiace v makroregióne strednej Európy podmienili hneď niekoľko komplexných reforiem v oblasti toponymie sídla. Tendenčné nominačné procesy boli v prípadovej štúdii Nitry zaznamenané analogicky so spoločenským vývojom a vznikom nových reálií viažucich sa na aktuálnu politickú situáciu v regióne a vo svete.

2 VZNIK TOPONYMICKÝCH NÁZVOV A ICH HISTORICKÁ KONTINUITA

Historický aspekt pomenovania je vyjadrením časového rámca urbanonymie. Dokumentuje premeny onymických motívov a ich formálnych štruktúr. Prvé pomenovania vznikali v snahe odlíšiť jednu ulicu od druhej alebo aj za účelom zlepšenia orientácie v priestore. Vo všeobecnosti boli názvy pochádzajúce zo stredoveku príležitostne motivované tvarom, smerom alebo polohou ulice (13. st.). Vznik systematických orientačných názvov sa datuje do obdobia, kedy slovenské mestá nadobudli samosprávny charakter (Pleskalová, 1988, s. 79). K zjednoteniu nitrianskeho Horného mesta s okolitými mestskými štvrťami došlo až v poslednej štvrtine 19. st. Nitra sa tak stala najväčším mestom župy. Vznikom názvoslovnej komisie mestského zastupiteľstva došlo k administratívnej ukotvenosti konkrétnych uličných názvov.
Vo vývoji urbanonymického inventára sídla hral dôležitú úlohu aj ekonomický determinant, vrátane národnostnej stratifikácie obyvateľstva. Skúmané materiály pochádzajúce z prvých vojenských mapovaní obsahovali názvy ulíc v maďarskej, latinskej a nemeckej jazykovej mutácii. V týchto variantoch boli používané ešte počas Habsburskej monarchie a neskôr aj po rakúsko-uhorskom vyrovnaní.
V skúmanom období konca 19. storočia išlo o pomenovania, ktoré súviseli napríklad s pôvodom, zamestnaním či etnickým zložením obyvateľstva Nitry (napr. „Vikárius utcza“ – Vikárska ulica). Niektoré mestské štvrte boli významnými sídlami cechov (napr. „Kálmár utcza“ – Kupecká ulica) či národnostných menšín (napr. „Czigány utcza“ – Cigánska ulica). Účel a zámer využitia priestoru boli ďalšími častými motivantami urbánnych názvov (napr. „Vám utcza“ – Mýtna ulica). V názvoch sa vyskytovali aj pomenovania objektov, ktoré boli sídlami samosprávy či administratívy (napr. „Vármegyeház tér“ – Župné námestie), prípadne boli vyjadrením vlastníctva priestorov (napr. „Káptalan utcza“ – Kapitulská ulica). Industrializácia a plošné rozšírenie katastra mesta súviseli s výstavbou priemyselných oblastí. V týchto nových hospodárskych centrách sídla boli ulice pomenované analogicky so stavbami či účelom, ktorým slúžili (napr. „Gyár utcza“ –Továrenská ulica). Viaceré z pomenovaní indikovali využitie už spomínaných orientačných onymických motívov okazionálneho pôvodu. Aj napriek zániku pôvodných lokalizačných bodov (fabrika, mlyn, kostol, nemocnica, kúpele a i.), prípadnej zmene využitia priestoru, mnohé z názvov sa dodnes zachovali.

3 URBANONYMIA MODERNÉHO MESTSKÉHO SÍDLA

V období okolo roku 1880 sa úplne vytratil vzhľad stredovekého mesta. Vyprofilovalo sa moderné sídlo – došlo k likvidácii mestských brán, rozvoju infraštruktúry ako prirodzeného

sprievodného javu nárastu populácie. S tým ďalej súvisel vznik rozsiahlych obytných sídlisk na predmestiach. Historické centrum nadobudlo skôr administratívny a rekreačný charakter. Objavila sa tendencia pomenovať ulice podľa osobností. Honorifikačný motív (angl. commemorative naming, nem. Ehrenmotiv, poľ. motiwacja pamiatkowa) sa vyvinul z posesívneho. Tento fenomén priniesol so sebou úplne nové atribúty a, pre náš výskum kľúčovú, politickú angažovanosť verejných priestorov a ich názvov. Kým pomenovania orientačného typu vynikali svojou stabilnosťou a apolitickosťou, dedikačné názvy, odrážajúce myslenie a spoločenskú a politickú profiláciu štátu, zvykli byť pri významnej ideologickej premene v štáte častejšie podrobené zmenám. Personalizáciou toponymických apelatív bola oslabená ich jednoduchá lokalizačná funkcia. Tieto premeny v uličnom názvosloví boli najčastejšie iniciované oficiálnou štátnou, straníckou alebo politickou mocou, s ktorou korešpondovali. Javia sa tak ako menej stabilné. Ich kontinuálnosť je narušená (Pleskalová, 1988, s. 79).

Na prelome storočí boli honorifikačné pomenovania venované najmä historickým osobnostiam maďarského pôvodu, ktoré boli často nábožensky angažované a významné z hľadiska miestnej histórie, napr. „Rákoci utcza“, „Palugyay utcza“, „Kossuth L. utcza“ a i. Prevaha maďarského národného nacionalizmu v období krátko po zániku monarchie je zjavná.

Hlboká kresťanská tradícia sa odrážala aj v uličných názvoch spojených s cirkevnými reáliami – napr. „Papnövelde utcza“ – Seminárska ulica (podľa kňazského seminára, ktorého výstavba prebehla v r. 1764 - 1770), „Pleébania utcza“ – Kláštorná ulica spojená s lokalitou Kláštora sv. Vincentiek de Paul (sídli tu od r. 1861).

4 PREMENY V NÁZVOSLOVÍ MESTSKÉHO PRIESTORUV V PRIEBEHU 20. STOROČIA

Po vzniku Československa v r. 1918 došlo k výraznej dehungarizácii Nitry. Predstavitelia vládnucej strany využívali označenia sídelných priestranstiev ako jeden zo spôsobov formovania kolektívnej pamäte v zmysle nacionalizácie.

Reštrikcie deklarované v Zákone o názvoch miest, obcí, osád a ulíc č. 266, § 7 Z. z. a nariadení Československého štátu zo 14. apríla 1920 zakazovali pomenovania, ktoré neboli v súlade s históriou československého národa. V tomto sa prvýkrát objavuje termín „závadné pomenovanie“ (Odaloš, 2006, s. 108). Zakázané boli také pomenovania verejných priestorov *„ktoré pripomínajú osoby, ktoré prejavovali nepriateľské zmýšľanie voči československému národu alebo národom spojeneckým“* (Mukulášová – Palárik, 2016, s. 179). Úplne vymizli názvy dedikované habsburskému panovníckemu rodu a iným osobnostiam monarchie. Odstránili sa tak viaceré z názvov centrálne lokalizovaných ulíc, napr. „Alžbetina cesta“ pôvodne pomenovaná po populárnej rakúskej cisárovnej Alžbete Bavorskej, manželke Františka Jozefa I. Táto bola strategicky premenovaná na počesť 1. prezidenta Československej republiky na „Masarykovu triedu“. Takéto zmeny v symbolickom prekódovaní názvov verejných priestranstiev plnili účel etablovať spoločenskú realitu existencie ČSR.

Názvoslovná komisie, katastrálny úrad, mestský architekt či členovia rôznych spolkov, politických strán a iní navrhovali nové pomenovania. Posledné slovo pri ich prijatí malo mestské zastupiteľstvo. Snaha o uplatnenie princípov demokratického vládnutia bola jedným zo základných prejavov novovzniknutej občianskej spoločnosti začiatku 20. st. Nitra sa svojou pokročilou urbanizáciou regiónu čoraz viac priblížila civilizačnému vzorcu západoeurópskych miest.

Zmeny v demografii obyvateľstva, vrátane celkovej štruktúry spoločnosti a jej chovania[1] bezprostredne ovplyvnili svetové konflikty a následné hospodárske recesie. Oslabenie statusu Viedne a Budapešti, a naopak, dôležitosť Prahy v úlohe akéhosi „filtra" či sprostredkovateľa zahraničných impulzov, bola kľúčová aj v jazykovej otázke. Súčasťou povojnovej ideológie bol intenzívny výklad národnej entity spojený s vyriešením jazykovej hranice. V roku 1938 boli Uznesením obecného zastupiteľstva mesta Nitry vo viacerých prípadoch nahradené osobnosti spoločných československých za predstaviteľov slovenských dejín a literatúry. V Nitre to boli prípady novovzniknutých ulíc pomenovaných po Kuzmányim, Kukučínovi, Komenskom atď. V spomínanom vývojovom období mestskej urbanonymie bola výrazná slovakizácia a tradicionalizácia priestoru. Táto prebiehala na pozadí rozmáhajúceho sa fašizmu v Európe a v súlade s expanzívnymi zámermi nacistického Nemecka. Od roku 1939 si akékoľvek zmeny v urbanonymii Slovenského štátu, nazývaného aj klérofašistickým, vyžadovali súhlas ríšskeho protektora.[2]

Vyhláškou Ministerstva vnútra č. 314/1943 bolo nariadené vykonanie zmien v *„duchu slovenskej samostatnosti"*. Štátna moc takýmito zmenami legitimizovala rozpad ČSR a začala konštruovať novú totalitnú etapu slovenských národných dejín (Bucher, 2015, s. 457). Na podnet týchto zmien pribudli v toponymických názvoch nové národné symboly, napr. dátum vzniku nového štátneho aparátu (napr. „Ul. 14. Marca") a ďalšie honorifikačné pomenovania po predstaviteľoch Slovenskej ligy v USA, rímsko-katolíckych a evanjelických kňazoch, došlo aj k opätovnej reflexii tradícií Veľkej Moravy. V Nitre bola istý čas ulica pomenovaná aj po Hitlerovi (časť dnešnej Mostnej ul.).

Režim využíval verejný priestor aj na realizovanie protižidovských opatrení, ktoré na Slovensku presadili nemeckí nacistickí radikáli. Nešlo len o arizáciu majetkov a obmedzenie zamestnávania, podnikateľských a iných aktivít Židov. Iniciatíva fašistov bola namierená aj na systematické vytláčanie tejto menšiny z ulíc pomenovaných po konkrétnych národných buditeľoch a niekoľkých ďalších lokalít, akými boli parky a centrálna mestská zóna.

Obdobie 2. sv. vojny znamenalo v toponymii návrat k ideálom československej národnej jednoty. Cieľom bolo upevniť nové politické smerovanie štátu, pozdvihnutie idey národného socializmu, ktorý mal absolútne zastúpenie v orgánoch verejnej správy. Nástup komunistickej strany do čela vlády v roku 1948 znamenal ďalšiu vlnu premenovania verejných priestorov. Odstránili sa názvy nekompatibilné s nastolenou politickou ideológiou; naopak, oslavovali sa komunistickí ideológovia a štátnici. V Nitre pribudla napr. „Molotovova ulica", „Leninovo námestie", „Stalingradské námestie" či ulica spojená s Parížskou komúnou („ul. Komunardov").

Odhalenie kultu osobnosti a následná destalinizácia spoločnosti ovplyvnila vývoj urbanonymie v 50. a 60. rokoch. Postupne vznikla iniciatíva, že pomenovania by mali byť politicky neutrálne (Šmilauer, 1963, s. 177). Smernica Ministerstva vnútra týkajúca sa premenúvania budov, ulíc a námestí zo dňa 24. apríla 1953 podobne limitovala použitie politicky motivovaných názvov; *„...je potrebné, aby sa postupne prikročilo k odstráneniu názvov ulíc, námestí, a pod., označených menami osôb, ktoré sa svojím nepriateľským postojom voči robotníckej triede a pracujúcemu ľudu zdiskreditovali v očiach verejnosti."* Podobne sa pristupovalo k odstraňovaniu sôch a iných monumentov, ktoré spoločensky a politicky nasledovali novú kolektívnu pamäť. Najčastejšie dochádzalo k náhrade starých

[1] Máme tým na mysli uvoľnenie maďarizačných iniciatív v regióne a celkový pokles v podiele maďarského obyvateľstva v Nitre.

[2] *„Ministerstvo vnútra na základe výnosu ríšskeho protektora zo dňa 26. augusta 1939 č. I 2a – 8052 oznamuje, že premenovanie ulíc a námestí (nielen mechanický preklad týchto názvov) vyžaduje v každom prípade súhlas ríšskeho protektora. Pokiaľ došlo k takýmto pomenovaniam od 15. marca 1939 až doposiaľ, je treba dodatočne si vyžiadať potvrdenie od ríšskeho protektora,"* (Odaloš, 2000, s. 283).

za nové. Často dokonca podobnej veľkosti a tvaru. Lokality sa tak na prvý pohľad javili ako nezmenené, ideologický zásah do nich bol symbolický. Takáto postupná premena verejného priestoru ho istým spôsobom zmenila na „štátny“ – monopol neumožňoval a tvrdo trestal akékoľvek prejavy religiozity, či politickej angažovanosti, ktoré by boli v nesúlade s oficiálnym režimom. Nástup komunizmu znamenal opätovnú kontrolu a reguláciu využívania verejných priestorov. Transparenty, nápisy či stretnutia museli byť vopred určené alebo schválené. Formálne ustanovená bola aj podoba sprievodov a verejných akcií, ktoré sa sústreďovali v okolí nových proruských štátnych symbolov a priestorov pomenovaných po komunistických reáliách. Významná bola pretrvávajúca ideologicko-reprezentatívna funkcia a práve absentujúci lokálnohistorický aspekt uličných pomenovaní. Priestory boli často premenované po v tom čase stále žijúcich osobnostiach, ktorých spätosť s Nitrou, jej tradíciou a dejinami bola minimálna alebo žiadna.
V období normalizácie prešli spoločensky angažované názvy ateizáciou a celkovou schematizáciou. Kompletné nahradenie názvov vlastných komunistickej orientácii štátu pretrvalo až do obdobia Pražskej jari. Urbanonymický vývoj sa v 70. rokoch stabilizoval. Objavili sa mená po obetiach fašistického režimu – Samuelovi Meitnerovi, Mirkovi Nešporovi, či po reáliách blízkych východnému bloku („Ulica československo-socialistického priateľstva“, „Ul. Červenej armády“, „Nám. osloboditeľov“, „Cesta Pionierov“ a i.)

5 VÝVOJ AGLOMERÁCIE NA PRELOME MILÉNIÍ

Posledná skúmaná vývojová etapa súvisiaca so vznikom samostatných republík v roku 1993, Českej a Slovenskej, rámcovala vytvorenie pluralitného politického systému. Fakticky išlo o najrozsiahlejšiu zo zmien v uličných pomenovaniach, pri ktorej došlo ku koncepčnej a tematickej rekonštrukcii názvov vo väčšine slovenských miest.
Problematika pomenovania verejných priestranstiev je do súčasnosti regulovaná vyhláškou Ministerstva vnútra Slovenskej republiky č. 369/1990 Zb. o obecnom zriadení v znení zákona č. 612/2002 Z. z. a jej neskoršími úpravami, a ďalšími nariadeniami mestskej legislatívy. Za hlavné zásady pomenovacích aktov je považovaný dôraz na orientáciu, kultúrny a politický ohľad na aktuálnu situáciu, zachovanie pôvodných názvov (najmä v historickom centre sídla) a iné. Výsledná podoba by nemala narúšať urbanonymiu mikroregiónu, práve naopak, mala by jej charakter dotvárať (Odaloš, 2006, s. 80).
Predchádzajúci agitačný charakter, ktorý miestna toponymia mala, sa spolu so zmenou spoločenských noriem transformoval na spoločensky menej angažovaný, a teda aj stabilnejší a neutrálnejší. Došlo k rozsiahlej revízii historických materiálov, čo umožnilo návrat k pôvodným etnokultúrnym atribútom vlastným obyvateľstvu regiónu. Vytratil sa ideologický zámer urbanonyma, do súčasnosti nad ním prevláda reprezentatívna funkcia konkrétneho priestoru. Podstatný je historický a kultúrny aspekt – výber nových, resp. obnovených pomenovaní zmenil charakter mesta v zmysle lokálneho či národného patriotizmu a národopisectva. Opätovný návrat k tradicionalizácii, teizácii a najmä výrazná deschematizácia verejného priestoru boli zjavné. Časť lexiky s nástupom moderných demokratických realít prešla do pasívnej slovnej zásoby. Jav eliminovania sovietskych či iných cudzích reálií môžeme považovať za snahu neutralizovať verejný priestor so zreteľom na patriotizmus, pôvodné kresťanské hodnoty.

6 ZÁVER

Z historicko-spoločenského hľadiska bolo možné identifikovať viacero činiteľov vplývajúcich na vznik, štruktúru a charakter toponymických pomenovaní v našom meste. Za dôležité pokladáme okrem iných najmä kultúrne hľadisko, ktoré ovplyvňuje miestny urbanonymický systém, ďalej sociálny a politický aspekt determinujúci stabilitu miestopisných názvov. Výskum dokázal, že pomenovania nitrianskeho mestského priestoru sú na základe

zmienených determinantov úzko späté so spoločenskou situáciou v konkrétnom časovo vymedzenom úseku. Viaceré zmeny v politike krajiny vyúsťujú v legislatívne a administratívne transformácie. Vzhľadom na tieto meniace sa regulatívy, prípadne aj orgány, v ktorých kompetencii je názvy meniť, dochádza priamo k premenovaniu konkrétnych predovšetkým politicky angažovaných topografických objektov. Charakteristické je pritom využitie kontrastu aktuálneho stavu s predchádzajúcim. Keďže mestská onýmia je všeobecne pokladaná za nositeľa kolektívnej pamäte, verejný priestor je tak strategickou platformou vyjadrenia nesúhlasu s bývalým režimom. Ani v Nitre to nebolo inak. V rámci jednotlivých vývojových etáp analogických so spoločenskými premenami, došlo k eliminovaniu materiálnych a formálnych odkazov na predchádzajúce zriadenie. Tie nahradili nové ideologické motívy kompatibilné s jednotlivými zmenami v politickej profilácii krajiny.

Použitá literatura

1. BUCHER, S. Príspevok k poznaniu urbanoným Bratislavy v kontexte ideológie národného socializmu a komunizmu. In *Historický časopis,* 2015. Roč. 63, č. 3, s. 451-481. ISSN 0018-2575.
2. MIKULÁŠOVÁ, A. – PALÁRIK, M. Názvy ulíc a námestí v zajatí politiky. Zoznam slovenských dejateľov schválených na pomenovanie verejných priestranstiev v rokoch 1939 – 1945. In *Studia Historica Nitriensia.* Nitra: UKF, 2016. Roč. 20, č. 1., s. 178-211. ISSN 1338-7219.
3. ODALOŠ, P. Dynamika premien urbanonymie. In *Sociálny kontext onymie.* Banská Bystrica: Univerzita Mateja Bela, 2006. s. 74-121. ISBN 80-8083-195-5.
4. ODALOŠ, P. Legislatívna determinácia urbanonymie. In: *14. Slovenská onomastická konferencia, Banská Bystrica 6.-8. júla 2000.* Bratislava: Jazykovedný ústav Ľ. Štúra SAV, 2000. s. 281-289. ISBN 80-8055-429-3.
5. PLESKALOVÁ, J.: Podíl pomístních jmen na tvorbě uličních názvů. In *Onomastika a škola 2 – Urbanonymia. Zborník prednášok z 2. celoštátneho seminára Modra--Piesky 8.-10. októbra 1988.* Bratislava: Univerzita Komenského v Bratislave, 1988. s. 79-84.
6. ŠMILAUER, V. *Úvod do toponomastiky*. Praha: Státní pedagogické nakladatelství, 1963. 219 s. ISBN 16-910-66.
7. TKÁČ-ZABÁKOVÁ, L. *Urbanonymia Nitry – analýza názvov ulíc v minulosti a dnes* [Rigorózna práca]. Nitra: UKF, 2017. 102 p.

Kontaktné údaje

PhDr. Lenka Tkáč-Zabáková
Ústav stredoeurópskych jazykov a kultúr
Fakulta stredoeurópskych štúdií UKF v Nitre
Dražovská 4
949 74 Nitra
Slovenská republika
lenka.tkaczabakova@ukf.sk

UKRAINE'S ACCESSION TO THE REGIONAL CONVENTION ON PAN-EURO-MEDITERRANEAN PREFERENTIAL RULES OF ORIGIN

Taras Kepych

Abstract

The paper reviews Pan-Euro-Mediterranean preferential rules of origin and Ukraine's accession to the Regional convention on Pan-Euro-Mediterranean preferential rules of origin. Ukraine's membership in the regional convention on Pan-Euro-Mediterranean preferential rules of origin is critical for fostering further progress in Ukraine's trade relations with EU countries, non-EU European and Mediterranean countries. The paper analyzes opportunities and constraints of Ukraine's accession to the regional convention on Pan-Euro-Mediterranean preferential rules of origin in the context of currently negotiated and existing Ukraine's free trade agreements.

Keywords: *rules of origin, PEM Convention, European Union (EU), Ukraine, AA/DCFTA, European Neighbourhood Policy (ENP), Eastern Partnership (EaP).*

1 INTRODUCTION

The EU's relations with its eastern neighbours have never attracted as much attention as in recent years. The Euromaidan revolution of 2013/2014 and the subsequent Russian annexation of the Crimea, followed by the emergence of territorial conflict between pro-Russian separatists and Ukrainian military and paramilitary forces in eastern parts of Ukraine, — these are just some of the many dramatic developments in the EU's neighbourhood that have recently emerged on the agenda of EU foreign-policy makers. In conjunction with the remnants of the financial and economic crisis, affecting both EU member states and European Neighbourhood Policy (ENP) partner countries in the EU's neighbourhood, and the persistence and re-emergence of 'stubborn authoritarianism', these developments have exposed the EU's ENP to challenges unthinkable when it was originally launched in 2003. In parallel, EU membership of central and eastern European countries in 2004 and 2007, Croatia's accession to the EU in 2013, the entering into force of the Lisbon Treaty and thus the creation of the European External Action Service (EEAS), have altered the EU and EU foreign policy making towards the neighbourhood from within. (8)

The EU has concluded the Association Agreement (AA) with Ukraine. (2) This very ambitious, complex and comprehensive legal treaty. The AA has a dual purpose: to enable political cooperation and economic integration with the EU and promote modernization of the partner country. (1) The key instrument in achieving these goals is the 'export of the acquis': the partner country have taken on extensive, binding commitments to adopt the vast sways of the acquis. The transformative role of the acquis on its own have not been tested and hence should not be overstated ex ante. For the AA to achieve its objectives, it is imperative to recognise this underlying challenge and develop strategies to address the fundamental 'commitment-capacity gap' in the partner country. Only in the case of Ukraine have some deliberate, pro-active adaptations taken place. The dramatic events of 2014 and Russia's punitive measures against Ukraine prompted the EU to provide more tailored and flexible assistance to ensure support for institutional reforms, as a precondition for legal approximation. The limited appreciation of the challenges and resulting adaptions so far has implications in terms of the implementation of the AA and, more importantly, the actual transformative power of the EU in the Eastern neighbourhood. (9)

In the long term, DCFTA can be expected to help modernise the economy of Ukraine and make it more competitive, provided the envisioned reforms are actually successfully implemented. However, the hefty burden of short-to-medium term costs and associated challenges may severely jeopardise the success of the endeavour. In particular, there are vast asymmetries in the net benefits that will accrue over the course of implementation along the time axis (high costs to be faced in the short and medium terms – potential benefits accruing mostly in the longer term), as well as across regions and economic sectors (less competitive sectors and regions will face a particularly high adjustment burden and may suffer as a result of related adjustments). Nor can the associated social costs resulting from restructuring and labour relocation be dismissed. Social tensions associated with restructuring and other effects of reform might jeopardise the initial pro-EU impulse. As a result, the incentives and the commitment to AA/DCFTA implementation may weaken and the political landscape in the signatory countries may switch towards greater populism and Euroscepticism, thereby possibly stalling or even ruining the progress of AA/DCFTA implementation. (10)

The possibility of Ukraine's joining the Regional Convention on Pan-Euro-Mediterranean preferential rules of origin is stipulated in the EU-Ukraine Association Agreement. Approval of Ukraine‘s request to join the Regional Convention on Pan-Euro-Mediterranean preferential rules of origin demonstrates EU's support of Ukraines's aspirations for European integration.

2 MATERIAL AND METHODS

The major provisions of the Regional convention on Pan-Euro-Mediterranean preferential rules of origin are analyzed in the paper. Their clauses related to preferential rules of origin are investigated with implementation of methods of legal analysis. Data for this research are derived from researches on implication of preferential rules of origin on the European Union and Ukraine, completed by international researchers.

3 RESULTS AND DISCUSSION

The Regional convention on Pan-Euro-Mediterranean preferential rules of origin

The pan-European cumulation system was created in 1997 on the basis of the EEA agreement (1994) between the EC, the EFTA countries, the CEEC (Central Eastern European Countries) and the Baltic States. It was then widened to Slovenia and to industrial products originating in Turkey (1999).The system was also enlarged to the Faroe Islands.

In 2005, it was enlarged to the participants in the Barcelona Process resulting in the creation of a pan-Euro-Mediterranean cumulation system of origin (IP/05/1256).

The system of Pan-Euro-Mediterranean cumulation of origin allows for the application of diagonal cumulation between the EU, EFTA States, Turkey, the countries which signed the Barcelona Declaration, the Western Balkans and the Faroe Islands. It is based on a network of Free Trade Agreements having identical origin protocols. Those origin protocols are being replaced by a reference to the Regional Convention on pan-Euro-Mediterranean preferential rules of origin (PEM Convention). The Regional Convention on pan-Euro-Mediterranean preferential rules of origin lays down provisions on the origin of goods traded under relevant Agreements concluded between the Contracting Parties. The initiative of creating a single PEM Convention, as an instrument promoting regional integration, was endorsed by the Euro-Mediterranean Trade Ministers during their meeting in Lisbon on 21 October 2007. It includes the above mentioned partners and the Western Balkans participating in the EU's Stabilisation and Association Process. The accession of a third party to the Convention is

only subject to the condition that it has a free trade agreement in force with at least one of the Contracting Parties to the Convention.

A single Convention will facilitate the on-going revision of the PEM rules of origin aiming at modernising and simplifying them. (5) The application of diagonal cumulation of origin within the Pan-Euro-Med zone is based on a network of Free Trade Agreements (FTAs), the origin protocols of which consist of identical rules of origin. The protocols of rules of origin in FTAs between Parties to the pan-Euro-Med zone are being replaced by the rules of origin laid down in the Regional Convention on pan-Euro-Mediterranean preferential rules of origin (PEM Convention) published in OJ L54 of 26 February 2013.

The 23 Contracting Parties to the PEM Convention are:

- the EU,
- the EFTA States (Switzerland, Norway, Iceland and Liechtenstein),
- the Faroe Islands,
- the participants in the Barcelona Process (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine (This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.), Syria, Tunisia and Turkey),
- the participants in the EU's Stabilisation and Association Process (Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Kosovo (This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.),
- the Republic of Moldova. (See Appendix)

Neighbouring countries or territories of Contracting Parties may apply to become a Contracting Party to the PEM Convention provided that they have a FTA in force, providing for preferential rules of origin, with at least one of the Contracting Parties. The Republic of Moldova applied for membership in July 2013 and became the 23rd Contracting Party on 1 September 2015. Two Contracting Parties which have ratified the Convention and have a FTA amongst them can replace the protocol on rules of origin to that FTA with a new protocol on rules of origin referring to the PEM Convention.

The PEM Convention will ultimately replace the network of about 60 bilateral protocols on rules of origin in force in the pan-Euro-Med zone with a single legal instrument. The main objective of the PEM Convention is to allow for a more effective management of the system of pan-Euro-Med cumulation of origin by enabling the Contracting Parties to better react to rapidly changing economic realities. A single legal instrument may indeed be amended more easily than a complex network of protocols and should pave the way towards the long expected adaptation of the pan-Euro-Med rules of origin to the current market conditions. The PEM Convention will also better integrate the participants in the European Union's Stabilisation and Association Process (the EU's SAP) into the Pan-Euro-Med system of cumulation of origin, by creating a single zone in which diagonal cumulation can apply. This step offers new trade opportunities. In particular, it allows for the application of diagonal cumulation involving at the same time the EU, EFTA States and participants in the EU's SAP.

In addition to bilateral cumulation, diagonal cumulation applies within the pan-Euro-Med zone. This means that materials which have obtained originating status in one of the Contracting Parties may be incorporated in products manufactured in another Contracting Party without those products losing their originating status when exported to a third Contracting Party within the pan-Euro-Med zone. Diagonal cumulation however only applies

if a FTA is in place between all Contracting Parties concerned. This is called the "variable geometry" rule.

Diagonal cumulation also covers industrial products of Chapters 25 to 97 of the HS originating in the Principality of Andorra and products originating in the Republic of San Marino.

In parallel, full cumulation is currently operated within the European Economic Area (the EEA comprises the EU, Iceland, Liechtenstein and Norway) and between the EU and Algeria, Morocco and Tunisia. The EEA countries apply full cumulation between them, the EEA being considered as a single territory, with a common "EEA originating status". They also apply diagonal cumulation with the other partner countries of the pan-Euro-Med zone. An important point is that EEA members can apply diagonal cumulation of origin also between themselves whenever it can confer preferential origin of an EEA country (in this case the declared origin will be the one of the country, not the EEA origin itself).

The "no-drawback" rule applies, in principle, in preferential trade within the pan-Euro-Med zone.

The protocols on rules of origin in FTAs between the EU, on the one hand, and Algeria, Egypt, Jordan, Morocco, Tunisia and Palestine, on the other hand, allow drawback in purely bilateral trade, meaning if no diagonal cumulation is applied and the product is not re-exported from a country of importation to any of the other countries of the zone.

Proof of origin

The originating status of a product is proved by either:

- a movement certificate EUR.1 or EUR-MED issued by the customs authorities of the exporting country or
- an invoice declaration or an invoice declaration EUR-MED made out by an approved exporter or by any exporter for a consignment consisting of one or more packages containing products whose total value does not exceed € 6 000.

Ukraine’s accession to the regional convention on Pan-Euro-Mediterranean preferential rules of origin

Article 5(1) of the Convention provides that a third party may become a Contracting Party to the Convention, provided that the candidate country or territory has a free trade agreement in force, providing for preferential rules of origin, with at least one of the Contracting Parties. To that end, Article 5(2) and (3) of the Convention require a third party to submit a written request for accession to the depositary of the Convention which, in turn, has to submit the request to the Joint Committee for its consideration. Article 2(2) of the Convention provides that, for the purposes of the Convention, ‘third party’ means any neighbouring country or territory which is not a Contracting Party. (6)

Ukraine submitted its written request for accession to the Convention to the depositary of the Convention (the General Secretariat of the Council of the EU) on 12 September 2016. The Contracting Parties to the Convention and the Member States were informed of the request made by Ukraine at the meeting of the Joint Committee of the Convention of 28 September 2016.

Ukrainian authorities confirmed that Ukraine has a free trade agreement with several Contracting Parties, notably with the EU, EFTA states, the former Yugoslav Republic of Macedonia and Montenegro. As a consequence, Ukraine complies with the condition set out in Article 5(1) of the Convention to become a Contracting Party.

Ukraine was invited to accede to the Convention, in accordance with Article 4(3)(b) of the Convention. Transitional measures as referred to in Article 4(3)(c) of the Convention were not required for the accession of Ukraine.

The legal basis for the Council Decision was Article 207 in conjunction with Article 218(9) of the Treaty on the Functioning of the European Union (TFEU).

Article 218(9) TFEU provides that when a decision having legal effect needs to be taken in a body set up by an international agreement, the Council, on a proposal from the Commission or the High Representative of the Union for Foreign Affairs and Security Policy, shall adopt a decision establishing the position to be adopted on the European Union's behalf.

On 20 September 2017, the Government of Ukraine endorsed the draft law on accession of Ukraine to the Regional Convention on pan-Euro-Mediterranean preferential rules of origin (pan-Euro-Med).

On 12 October 2017, the President of Ukraine submitted to the Parliament a draft law on Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin.

The Law of Ukraine "On Ukraine's Accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin" was adopted by the Verkhovna Rada of Ukraine on November 8, 2017. (7)

On 30 November 2017, President of Ukraine Petro Poroshenko signed the Law of Ukraine On Ukraine's Accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin.

On 2 December 2017, the law on Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin ("PEM Convention") was published.

The participation of Ukraine to the PEM Convention will increase the access of Ukrainian goods to the EU markets and trades with other PEM Convention members that have contracted Free Trade Agreements (FTA).

Ukraine will become a PEM Convention member upon deposit of the accession instrument with the depositary of the PEM Convention – the General Secretariat of the Council of the EU.

Among PEM members, Ukraine has FTAs with the EU, the EFTA, Montenegro, Macedonia, Moldova and Georgia, and thus will be able to implement diagonal cumulation in trade with them once it has acceded to the Convention and introduced relevant amendments into its bilateral FTAs. Ukraine is currently also negotiating FTAs with two important partners of the PEM convention, namely Turkey and Israel. The usage of diagonal cumulation among countries is possible only if the PEM convention is mentioned in each of the respective FTAs. Currently, most of Ukraine's FTAs with the PEM countries do not yet contain such clauses. The current situation is as follows. Ukraine's FTAs with Macedonia and Montenegro as well as with Georgia and Moldova do not envisage diagonal cumulation based on the PEM Convention. Thus, Ukraine will have to negotiate a replacement of the protocols of the rules of origin or amendment of the respective articles of the agreements with the above countries. The EU-Ukraine DCFTA mentions the possibility of cumulation based on PEM but requires additional amendments following Ukraine's accession to the Convention. Thus, to use the PEM Convention, the protocol is to be amended in EU-Ukraine DCFTA. According to Article 39 of Protocol I of EU-Ukraine Association Agreement, the Customs Sub-Committee will decide on the replacement of the original rules of origin embedded in the Protocol by the Convention following Ukraine's PEM accession. Ukraine's FTA with the EFTA is the only

one of its FTAs that foresees a cumulation option with the PEM countries explicitly in the text of the current protocol.

In 2017 Ukraine and Canada ratified their FTA, while the EU-Canada FTA (CETA) is in the process of ratification. Although Canada does not express any interest to join the PEM, the Ukraine-Canada FTA contains the clause that allows diagonal cumulation in case all relevant parties agree.

It is advisable to base any next FTA signed by Ukraine with PEM member states on the PEM Convention. Turkey is most likely to be the next country with which Ukraine will conclude the FTA. The talks were launched in 2012 but the progress was very moderate. Trade in agricultural goods that remained outside the EU-Turkey Customs Union caused most of the difficulties. Recently both countries declared the intension to speed up the process and reach agreement. It is reasonable to expect that the rules of origin defined in the agreement will take into account the PEM convention.

Ukraine launched FTA talks with Israel in 2013. The fourth round of talks took place in January 2017. Again, the PEM Convention is expected to be used to define the rules of origin for this agreement, which will provide additional prospective opportunities for Ukraine. (11)

4 CONCLUSION

Ukraine’s exports are dominated by intermediate products, in particular primary products not requiring imported inputs. Moreover, the EU is among the largest suppliers of the intermediate products to Ukraine. Thus, the PEM membership is likely to have a limited immediate impact on trade. However, there is potential for reorientation of intermediate imports, in particular with Turkey after the FTA and the PEM membership are achieved. The sectors that could gain the most from the PEM are production of clothing and footwear and production of electrical equipment. (11)

Participation of Ukraine in the PEM Convention will facilitate the creation of conditions for trade facilitation and increase of Ukrainian exports. It will also boost the presence of domestic goods in the markets of third countries with which free trade agreements have been concluded, namely the EU, the EFTA states, Montenegro, Moldova, and Macedonia.

Accession to the Convention will help simplify the terms of trade and increase the use of Ukraine's export potential, strengthen trade ties and economic integration into the European Union. Convention on pan-Euro-Mediterranean preferential rules of origin diversifies our exports both geographically and in terms of the basket of goods - the volume of deliveries to the EU market will increase. The process of joining the Convention offers opportunities for business persons to plan their activities for the future, because exports are an opportunity to realize realize profit for them and for the country. Ukrainian companies create unique products that are appreciated by consumers all over the world. This shapes additional competitive advantages for producers and opens up better opportunities for exporters. Accession to the Convention will allow enterprises to take full advantage of the uniqueness of Ukrainian goods in the European market, thereby increasing their own earnings and improving their own competitive positions in the world.

In order to fully use the advantages of the Convention is to amend the relevant existing free trade agreements in terms of replacing the protocols of rules of origin of goods. EU-Ukraine Deep and Comprehensive Free Trade Agreement should be amended to include a reference to the PEM Convention for the list of rules on preferential origin.

Appendix

Contracting Parties to the PEM Convention

EFTA countries, the Faroe Islands and EEA

Preferential arrangement	Rules of origin/cumulation
Switzerland - Industrial products (01.01.1973) Free Trade Agreement, OJ L 300, 31.12.1972, p.189 - Agricultural products (01.06.2002) Agreement on trade in agricultural products, OJ L 114, 30.4.2002, p.132.	Protocol 3 (PEM Convention) OJ L 23, 29.1.2016, p. 79–81 Bilateral and diagonal cumulation
Iceland (01.04.1973) Free Trade Agreement, OJ L 301, 31.12.1972, p.2.	Protocol 3 (PEM Convention) Bilateral and diagonal cumulation
Norway (01.07.1973) Free Trade Agreement, OJ L 171, 27.06.1973, p.2.	Protocol 3 (PEM Convention) Bilateral and diagonal cumulation
Faroe Islands / Denmark (01.01.1997) Agreement, OJ L53, 22.02.1997, p.2.	Protocol 3 (PEM Convention) OJ L 134, 30.5.2015, p.29 Bilateral and diagonal cumulation
European Economic Area (EC-IS-NO-LI) Association Agreement, OJ L 1, 03.01.1994, p.3.	Bilateral, diagonal and full cumulation

Mediterranean Countries

Preferential arrangement	Rules of origin/cumulation
Turkey Industrial products - Customs union (01.01.1996) Decision No 1/2006 of the EC-Turkey Customs Cooperation Committee OJ L 265 of 26.09.2006	Bilateral and diagonal cumulation (OJ L 265 of 26.9.2006 p.18, as last amended by OJ L 267 of 27.9.2006 p.48.
- Coal and steel products (01.01.1997) Agreement, OJ L 227, 07.09.1996, p.3. - Agricultural products (01.01.1998) Decision on the trade in agricultural products, OJ L 86, 20.3.1998, p. 1.	Protocol 1 OJ L43, 06.06.2009 Bilateral and diagonal cumulation Protocol 3 (Decision No 3/2006 of the EC-Turkey Association Council, of 19 December 2006, amending Protocol 3 to Decision No1/98 of the EC-Turkey Association Council of 25 February 1998 on the trade regime for agricultural products) Bilateral and diagonal cumulation
Algeria (01.09.2005) Euro-Mediterranean Association Agreement, OJ L 265, 10.10.2005	Protocol 6 OJ L 297 of 15.11.2007 Bilateral, diagonal and full cumulation
Tunisia (01.03.1998) Euro-Mediterranean Association Agreement , OJ L 97, 30.03.1998, p.2.	Protocol 4 OJ L 260 of 21.9.2006 Bilateral, diagonal and full

Preferential arrangement	Rules of origin/cumulation
	cumulation
Israel (01.06.2000) Euro-Mediterranean Association Agreement, OJ L 147, 21.06.2000, p.3. Revised notice to importers of goods from Israel (Technical Arrangement)	Protocol 4 OJ L 20 of 24.1.2006 Bilateral and diagonal cumulation
Palestinian Authority of the West Bank and the Gaza Strip (01.07.1997) Euro-Mediterranean Interim Association Agreement, OJ L 187, 16.07.1997, p.3.	Protocol 4 OJ L 20 of 24.1.2006 Bilateral and diagonal cumulation
Egypt (01.06.2004) Mediterranean Association Agreement, OJ L304 of 30.09.2004, p.39.	Protocol 4 (PEM Convention) OJ L 334 of 22/12/2015 Bilateral and diagonal cumulation
Jordan (01.05.2002) Euro-Mediterranean Association Agreement, OJ L 129, 15.05.2002, p.3.	Protocol 3 OJ L 209 of 31.7.2006 Bilateral and diagonal cumulation
Lebanon (01.03.2003) Euro-Mediterranean Association Agreement, OJ L 143, 30.05.2006, p.2.	Protocol 4 OJ L 143 of 30.05.2006, p. 73 Bilateral cumulation
Syria (01.07.1977) Cooperation Agreement, OJ L 269, 27.09.1978, p.2.	Protocol 2 OJ L 269 of 27.09.1978 Bilateral cumulation

Western Balkan countries

Preferential arrangement	Rules of origin/cumulation
the former Yugoslav Republic of Macedonia (01.06.2001) Stabilisation and Association Agreement, OJ L 84, 20.3.2004, p. 13.), as last amended by the 2007 Accession Protocol, OJ L 99, 10.4.2008, p. 2.	Protocol 4 OJ L 99, 10.4.2008, p. 27. Bilateral and diagonal cumulation
Albania (01.04.2009) Stabilisation and Association Agreement, OJ L 107, 28.4.2009, p. 166.; as last amended by the 2007 Accession Protocol, OJ L 107, 28.04.2009, p. 2.	Protocol 4 (PEM Convention) OJ L 129, 27.5.2015, p.50. Bilateral and diagonal cumulation
Bosnia - Herzegovina (01.07.2008) Interim Agreement on trade and trade-related matters, OJ L 169, 30.6.2008 , p. 13.; as last amended by OJ L 233, 30.8.2008, p. 6.	Protocol 2 OJ L 233, 3.8.2008, p. 224 Bilateral and diagonal cumulation
Montenegro (01.01.2008) Stabilisation and Association Agreement, OJ L 108, 29.04.2010, p. 3.	Protocol 3 (PEM Convention) OJ L 28, 4.2.2015, p.45 Bilateral and diagonal cumulation
Serbia (08.12.2009) Stabilisation and Association Agreement, OJ L 278, 18.10.2013, p. 16.	Protocol 3 (PEM Convention) L 367, 23.12.2014, p. 119 Bilateral and diagonal cumulation

Eastern Partnership countries

Preferential arrangement	Rules of origin/cumulation
the Republic of Moldova (1.9.2014) Association Agreement, OJ L 260, 30.8.2014, p. 4.	Protocol II (p. 621) Bilateral cumulation

Eastern Partnership countries (other than the Republic of Moldova)

Preferential arrangement	Rules of origin/cumulation
Georgia (1.9.2014) Association Agreement, OJ L 261, 30.8.2014, p. 4.	Protocol I (p. 612) Bilateral cumulation
Ukraine (1.1.2016) Association Agreement, OJ L 161, 29.5.2014, p. 3.	Protocol I (p. 1994) Bilateral cumulation

Other countries and territories

Preferential arrangement	Rules of origin/cumulation
Andorra (agricultural products outside the scope of the customs union) Agreement, OJ L 374, 31.12.1990, p.14.	Appendix to the Agreement OJ L 344, 30.12.2015, p. 15–52 Bilateral cumulation
Ceuta and Melilla Protocol No 2 to the Act of Accession of Spain, OJ L 302, 15.11.1985	Council Regulation (EC) No. 82/2001 of 5 December 2000 OJ L 20, 20.01.2001, p.1. Bilateral cumulation with the EC and diagonal or full cumulation, as appropriate, with partner countries of the EC

Autonomous preferential arrangements

Preferential arrangement	Rules of origin/cumulation
Overseas countries and territories (01.01.2014) (Council Decision No. 2013/755/EU of 25 November 2013, OJ L 344, 19.12.2013, p.1.	Annex VI to the Decision "EC-OCT-EPA" bilateral and full cumulation, cumulation with GSP countries, extended cumulation
Generalised System of Preferences Until 31/12/2013: Council Regulation (EC) No. 732/2008 of 22 July 2008, OJ L 211, 6.8.2008, p. 1. From 1/1/2014: Council Regulation (EC) No 978/2012 of 25 October 2012, OJ L 303, 25.10.2012, p. 1.	Articles 66 to 97w Commission Reg. (EEC) No 2454/93 of 2 July 1993 "EC-NO-CH" bilateral, regional and diagonal cumulation
Kosovo (until 31.12.2020) Regulation (EU) 2015/2423 of the European Parliament and of the Council of 16.12.2015 amending Council Regulation (EC) No 1215/2009	Articles 97x to 123 Commission Regulation (EC) No. 2454/93 of 2 July 1993 Bilateral cumulation

Sources

1. Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part OJ L 161, 29.5.2014, p. 3–2137 (BG, ES, CS, DA, DE, ET, EL, EN, FR, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV).
2. FINAL ACT between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Ukraine, of the other part, as regards the Association Agreement OJ L 278, 20.9.2014, p. 4–5 (BG, ES, CS, DA, DE, ET, EL, EN, FR, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV).
3. European Commission, Explanatory Notes concerning the Pan-Euro-Mediterranean Protocols on Rules of origin, OJ C 83/1, 17.4 2007.
4. European Commission, A User's Handbook to the Rules of Preferential Origin used in trade between the European Community, other European Countries and the countries participating in the Euro-Mediterranean Partnership (http://ec.europa.eu/ taxation_customs/sites/taxation/files/resources/documents/customs/customs_duties /rules_origin/preferential/handbook_en.pdf).
5. European Union, Regional Convention on pan-Euro-Mediterranean preferential rules of origin, Official Journal of the European Union, L54, Vol 56, 26 February 2013.
6. Proposal for a COUNCIL DECISION on the position to be adopted, on behalf of the European Union, within the Joint Committee established by the Regional Convention on pan-Euro-Mediterranean preferential rules of origin as regards the request of Ukraine to become a Contracting Party to that Convention - COM/2017/0162 final - 2017/072 (NLE).
7. Закон України від 08.11.2017 № 2187-VIII Про приєднання України до Регіональної конвенції про пан-євро-середземноморські преференційні правила походження.
8. SCHUMACHER, T. and BOURIS, D., 2017: The 2011 Revised European Neighbourhood Policy: Continuity and Change in EU Foreign Policy. In: Bouris D., Schumacher T. (eds) The Revised European Neighbourhood Policy. Palgrave Macmillan, London.
9. WOLCHUK, K., DELCOUR, L., DRAGNEVA, R., MANIOKAS, K., and ŽEURUOLIS, D., 2017: The Association Agreements as a Dynamic Framework: Between Modernization and Integration.
10. ADAROV, A., and HAVLIK, P., 2017: Challenges of DCFTAs: How can Georgia, Moldova and Ukraine succeed? (No. 18). The Vienna Institute for International Economic Studies, wiiw.
11. KOVZIRIDZE, T., MOVCHAN, V., EMERSON, M., and GUMENE, V., 2017: The Pan-Euro-Mediterranean Convention on Preferential Rules of Origin and its Benefits: A Comparative Analysis of its application for Georgia, Moldova and Ukraine.

Contact

Taras Kepych
Department of Economics
Faculty of Business and Economics
Mendel University in Brno
Zemědělská 1665/1, Brno, Czech Republic
email: kepych@gmail.com

PORADNÉ STANOVISKÁ PODĽA PROTOKOLU Č. 16 K DOHOVORU O OCHRANE ĽUDSKÝCH PRÁV A ZÁKLADNÝCH SLOBÔD

ADVISORY OPINIONS UNDER PROTOCOL NO. 16 TO THE CONVENTION FOR THE PROTECTION OF HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS

Jana Vrabľová

Abstrakt

Tento príspevok stručne opisuje pretrvávajúce reformné obdobie štrasburského systému ochrany ľudkých práv, v ktorom uzreli svetlo sveta viaceré protokoly k Dohovoru o ochrane ľudských práv a základných slobôd, medzi nimi Protokol č. 16. Prináša pohľad na to, aké sú želané vízie správnej aplikácie mechanizmu poradných stanovísk ale i na to, z čoho pramenia niektoré predsudky a nedôvera v to, že nezáväzné poradné stanoviská môžu posilniť ochranu ľudských práv a základných slobôd na národnej úrovni. Autor analyzuje možné dôvody zdržanlivosti členských štátov Rady Európy, vrátane Slovenskej republiky v otázke ratifikácie Protokolu č. 16. Osobitný priestor je v príspevku venovaný postoju Európskej únie k poradným stanoviskám vydávaným štrasburským súdom.

Kľúčové slová: *poradný, stanovisko, protokol, dohovor, súd*

Abstract

This paper briefly describes the ongoing reform period of the Strasbourg human rights protection system, in which several protocols to the Convention for the Protection of Human Rights and Fundamental Freedoms, including the Protocol. 16. It provides insight into what the visions of the correct application of the advisory opinions mechanism are but also to some of which are rooted prejudices and mistrust in that the non-binding advisory opinions may strengthen the protection of human rights and fundamental freedoms at the national level. The author analyzes the possible reasons for the restraint of the member states of the Council of Europe, including the Slovak Republic, on ratification of Protocol no. 16. A special area is devoted to the position of the European Union on advisory opinions issued by the European Court of Human Rights.

Key words: *advisory, opinion, protocol, convention, court*

ÚVOD

Dialóg medzi Európskym súdom pre ľudské práva (ďalej len „štrasburský súd") a národnými súdmi členských štátov Rady Európy (ďalej len „RE"), sa udržiava či už priamo alebo nepriamo na viacerých úrovniach a niekoľkými spôsobmi. Patria sem napríklad každoročné študijné návštevy a stáže sudcov národných súdov v Štrasburgu, kde pôsobia a zúčastňujú sa pojednávaní. Nemenej dôležité pre účely prehĺbovania komunikácie bolo vytvorenie Siete najvyšších súdov (Superior Courts Network) v roku 2015, ktorej hlavným cieľom je zabezpečiť efektívnu výmenu informácií o judikatúre a prostredníctvom dialógu medzi štrasburským súdom a najvyššími národnými súdmi zlepšiť uplatňovanie Dohovoru o ochrane ľudských práv a základných slobôd (ďalej len „dohovor"). Spoločná zdielaná zodpovednosť štrasburského súdu a národných súdov za vykonávanie dohovoru, umocňovaná ich vzájomnou komunikáciou, bola tiež ústrednou témou Bruselskej konferencie na vysokej

úrovni v marci 2015. Konferencia vyzvala k prehĺbovaniu dialógu, vytvoreniu kontaktných bodov pre záležitosti ľudských práv v rámci legislatívnych, súdnych, výkonných orgánov, k distribúcii a šíreniu výročných aj tématických správ, či k organizovaniu debát, školení, prednášok. Mechanizmus poradných stanovísk štrasburského súdu by mohol tento dialóg pozdvihnúť na ešte vyššiu úroveň. Prostredníctvom stanovísk byť mohol byť štrasburský súd priamo účastný pri rozhodovaní a podávať výklad dohovoru skôr než národný súd rozhodne. Z toho samozrejme plynú ďalšie želané prínosy, ktoré sa spolu s úskaliami Protokolu č. 16 k dohovoru pokúsime bližšie načrtnúť v našom príspevku.

1 PROTOKOL Č. 16 AKO SÚČASŤ REFORMY ŠTRASBURSKÉHO SÚDU

Prijatie Protokolu č. 16 k dohovoru je súčasťou série reforiem sytému ochrany ľudských práv v Štrasburgu. Myšlienka reformovať tento systém vznikla kvôli nadmernému zaťaženiu súdu, neprimeranej dĺžke rozhodovania takých prípadov, ktoré sa týkali systémových otázok a v neposlednom rade aj ako reakcia na plánované pristúpenie Európskej únie k dohovoru. Kroky smerujúce k riešeniu spomenutých problémov boli urobené už Protokolom č. 14 k dohovoru, platným od júna 2010, a to napríklad zavedením tzv. pilotných rozsudkov. V nich súd identifikuje systematické, resp. štrukturálne problémy vnútroštátneho práva (legislatíva, interpretácia, aplikácia) a zároveň zdroj týchto problémov, najmä v prípade, ak je pravdepodobné, že daný problém dáva dôvod pre podanie niekoľkých sťažností. Ďalším z radu reformných protokolov je Protokol č. 15 k dohovoru, otvorený na podpis od 24. júna 2013. Jeho hlavnou ambíciou je zabezpečiť efektivitu štrasburského súdu, o ktorú sa posnaží posilnením princípu subsidiarity, skrátením lehoty na podanie sťažnosti zo 6 na 4 mesiace a súd sa už nebude musieť pri posudzovaní prijateľnosti žiadosti riadiť ustanovením „ak nebol (prípad) riadne preskúmaný domácim súdom." V čase prípravy príspevku bol Protokol č. 15 k dohovoru ratifikovaný 38. štátmi, pričom na platnosť sa vyžaduje ratifikácia všetkými vysokými zmluvnými stranami dohovoru.

Od 2. októbra 2013 môžu vysoké zmluvné strany dohovoru vyjadrovať svoj súhlas byť viazané aj Protokolom č. 16 k dohovoru (ďalej len „protokol"). Na rozdiel od Protokolu č. 2 k dohovoru, ktorý bol ratifikovaný všetkými členskými štátmi RE, protokol bol v čase prípravy príspevku podpísaný osemnástimi členskými štátmi ale ratifikovalo ho zatiaľ len osem, pričom na jeho platnosť sa podľa článku 8 odsek 1 protokolu vyžaduje ratifikácia minimálne desiatimi členskými štátmi RE.

2 PORADNÉ STANOVISKÁ

Štrasburský súd má právomoc vydávať posudky o právnych otázkach týkajúcich sa výkladu Dohovoru a jeho protokolov zakotvenú už Protokolom č. 2, avšak môže tak len na žiadosť Výboru ministrov a posudky sa nesmú zaoberať otázkami, ktoré sa týkajú obsahu alebo rozsahu práv a slobôd ustanovených v hlave I Dohovoru a v protokoloch. Od platnosti Protokolu č. 2[1], čo je takmer pol storočie, boli na súd podané 3 žiadosti a vydané boli len 2 posudky.

V modernej histórii sa návrh na rozšírenie právomoci štrasburského súdu o podávanie poradných stanovísk, tzv. „advisory opinions", objavil v správe Výboru ministrov Skupiny múdrych, zriadenej na základe Akčného plánu prijatého na Treťom samite hláv štátov a vlád členských štátov RE, konanom dňa 16.-17. mája 2005 vo Varšave. Skupina múdrych dospela k záveru, že dialóg medzi štrasburským súdom a národnými súdmi je potrebné posilniť. Myšlienka posilnenia tejto interakcie a zlepšenia uplatňovania dohovoru bola následne rozvíjaná na konferenciách na vysokej úrovni o budúcnosti súdu v Interlaken (2010), Izmir (2011), Brighton (2012).

[1] 21.09.1970

Podľa odsekov 1 a 2 článku 1 protokolu *„môžu najvyššie súdy a tribunály Vysokých zmluvných strán, tak ako sú stanovené v súlade s článkom 10, požiadať súd, aby vydal poradné stanoviská k zásadným otázkam týkajúcim sa výkladu alebo uplatňovania práv a slobôd uvedených v dohovore alebo jeho protokoloch. Dožadujúci súd alebo tribunál môže požiadať o poradné stanovisko len v súvislosti s prípadom, ktorým sa zaoberá."*
Mechanizmus vydávania poradných stanovísk podľa protokolu je založený na princípe fakultatívnosti. V súvislosti s protokolom je členským štátom RE ponechaná dobrovoľnosť v otázke:

1. pristúpenia k protokolu,
2. výberu najvyšších súdov a tribunálov v rámci vnútroštátneho súdneho systému oprávnených požiadať súd, aby vydal poradné stanoviská,
3. zmeny určenia skôr vybraného súdu,
4. využitia možnosti požiadať súd o poradné stanovisko,
5. rešpektovania, resp. zohľadnenia stanoviska vydaného štrasburským súdom.

2.1 Orgán oprávnený na podanie žiadosti

Vyššie spomenutá dobrovoľnosť v otázke určenia vnútroštátnych súdov oprávnených na podanie žiadosti o poradné stanovisko je podľa nášho názoru zároveň jednou z príčin zdržanlivosti štátov v pristupovaní k protokolu. Nakoľko to nemusia byť len súdy tej najvyššej inštancie v krajine, sa štáty obávajú vzniku komplikovaných ústavnoprávnych situácií. Napríklad Rumunsko a Fínsko rozšírili svoj výber oprávnených súdov na účely článku 1 odsek 1 tohto protokolu okrem najvyššieho súdu a ústavného súdu aj o ďalšie národné súdy.
Mohlo by dôjť k takému javu, že súdy, ktoré majú v členských štátoch RE posledné slovo pred tým, než je podaná sťažnosť na štrasburský súd, budú obídené, pretože súd nižšej inštancie využil svoje oprávnenie obrátiť sa na štrasburský súd so žiadosťou o výklad dohovoru. Takáto ostražitosť členských štátov RE môže byť sčasti podporovaná aj narastaním nespokojnosti členských štátov Európskej únie s mechanizmom podávania predbežných otázok na Súdny dvor Európskej únie (v texte aj „luxemburský súd") podľa článku 19 ods. 3, písm. b) ZEÚ a článku 267 ZFEÚ (bývalý článok 234 ZES). Stáva sa totiž, že je predbežná otázka zneužívaná súdmi nižšieho stupňa, ktoré sa chcú vzoprieť rozhodnutiu súdu vyššieho stupňa tým, že ho obídu a obrátia sa priamo na luxemburský súd. Súdny dvor EÚ dokonca konštatuje, že „Súd, ktorý nerozhoduje na poslednom stupni, musí mať možnosť obrátiť sa na Súdny dvor s otázkami, ktoré vyvolávajú pochybnosti, ak sa domnieva, že právne posúdenie súdom vyššieho stupňa by ho mohlo viesť k vyhláseniu rozsudku, ktorý je v rozpore s právom Únie."[2] Ako aj Ústavný súd SR: „Len predkladajúci súd je tým súdom,..., ktorý je oprávnený posúdiť potrebu odpovede Súdneho dvora v konaní o prejudiciálnej otázke aj bez ohľadu na funkčnú príslušnosť v subsystéme všeobecného súdnictva...".[3]
Domnievame sa, že pri realizácii mechanizmu poradných stanovísk je takéto riziko do značnej miery eliminované tým, že protokol necháva štátom voľnú ruku pri výbere oprávnených súdnych orgánov na podávanie žiadostí a dokonca pri dodržaní kritéria, aby v danom konkrétnom prípade išlo o súd, ktorý rozhoduje na poslednom stupni, sa môžu štáty úspešne vyhnúť neželaným javom známym z prejudiciálnych konaní.

2.2 Fakultatívnosť žiadosti

Dobrovoľnosť je prítomná už v rozhodovaní oprávneného súdneho orgánu či sa v konkrétnom, práve prebiehajúcom konaní obráti so žiadosťou o poradné stanovisko na

[2] C 173/09, Elchinov v. Natsionalna zdravnoosiguritelna kasa, rozsudok z 5. októbra 2010, Zb.s. I-8889, bod 26
[3] uznesenie Ústavného súdu SR II. ÚS 128/2011

štrasburský súd. V mechanizme poradných stanovísk teda absentuje povinnosť, ako ju poznáme v prejudiciálnom konaní podľa článku 267 ZFEÚ, odsek 3.
Môžeme pritom rozpoznať 3 situácie, v ktorých sa národný súd rozhodne postupovať v súlade s článkom 1 odsek 1 protokolu:

1. ak potrebuje vysvetliť judikatúru štrasburského súdu,
2. ak si chce overiť, či národný štandard ochrany práv je v súlade s dohovorom,
3. ak chce docieliť, aby štrasburský súd pozmenil svoju judikatúru.

V súvislosti s otázkou zapojenia štrasburského súdu do konania pred vnútroštátnym súdom ešte pred vynesením rozhodnutia by sme sa mohli zamýšľať aj nad dodržaním princípu subsidiarity – základného princípu medzinárodnej ochrany ľudských práv. Keďže je zapojenie mechanizmu poradných stannovísk fakultatívne, ide tu o akési vzdanie sa striktného dodržania princípu subsidiarity na základe dobrovoľnosti a v prípadoch, kedy to národný sudca uzná za potrebné.

2.3 Predmet poradného stanoviska

Štrasburský súd smie vydávať poradné stanoviská k zásadným otázkam týkajúcim sa výkladu alebo uplatňovania práv a slobôd uvedených v dohovore alebo jeho protokoloch. Dožadujúci súd alebo tribunál môže v súlade s článkom 1 odsek 2 protokolu požiadať o poradné stanovisko len v súvislosti s prípadom, ktorým sa zaoberá. Vychádzajúc z dikcie protokolu, národný súd sa nebude môcť obrátiť na štrasburský súd so žiadosťou o zaujatie stanoviska k abstraktnému prípadu. Prípustnosť žiadosti o vydanie poradného stanoviska posúdi porota piatich sudcov veľkej komory a zamietnutie žiadosti odôvodní. V budúcnosti môžeme tiež sledovať, či si štrasburský súd osvojí tzv. doktrínu „acte clair“ Súdneho dvora EÚ a žiadosti o zaujatie stanoviska bude zamietať aj z dôvodu, že sa nimi žiada o výklad ustanovenia dohovoru, ktoré je na správne uplatnenie tak jasné, že nenecháva priestor pre akúkoľvek rozumnú pochybnosť.
Zmyslom inštitútu poradných stanovísk nie je nahradiť vnútroštátne súdy v meritórnom rozhodovaní, naopak jeho cieľom je, aby čoraz viacej prípadov bolo vyriešených na národnej úrovni uspokojivým spôsobom. Avšak, podľa nášho názoru bude pre štrasburský súd veľmi obtiažné neprekročiť hranicu medzi vydávaním poradného stanoviska podľa protokolu vo veci týkajúcej sa výkladu či uplatňovania práv a slobôd podľa dohovoru a rozhodnutím, či v danom prípade nedošlo k porušeniu ľudského práva alebo základnej slobody.

2.4. Právna záväznosť poradných stanovísk

O účinkoch poradných stanovísk je potrebné uvažovať v dvoch základných rovinách. Podľa článku 5 protokolu stanoviská nie sú záväzné. Medzi stranami konkrétneho prípadu nebudú mať záväzný účinok. Dá sa ale očakávať, že ich nepriame pôsobenie bude takmer rovnako účinné, akoby išlo o záväzný rozsudok. Aj keď z nedodržania odporúčaní neplynie žiaden priamy postih erga omnes, môžme oprávnene očakávať, že na to bude štrasburský súd prihliadať v rámci posudzovania porušenia dohovoru, ak bude v tomto prípade podaná sťažnosť.
Na druhej strane sa tieto poradné stanoviská stanú súčasťou judikatúry, čo má nespochybniteľnú výkladovú silu. O to viac, že sa v súlade s odsekom 1 článku 4 protokolu odôvodňujú a podľa článku 5 tohoto protokolu aj zverejňujú.

3. SLOVENSKÁ REPUBLIKA A PROTOKOL Č. 16

V mene Slovenskej republiky (ďalej len „SR") podpísal protokol stály predstaviteľ SR pri RE v Štrasburgu Drahoslav Štefánek dňa 2. októbra 2013. Protokol bol podpísaný počas slávnostnej podpisovej ceremónie v sídle RE v Štrasburgu. SR bola jednou zo šiestich členských krajín RE, ktoré sa na podpisovej ceremónii zúčastnili (Fínsko, Francúzsko,

Taliansko, San Maríno, Slovinsko a SR).[4] Z týchto krajín ho doposiaľ ratifikovalo len Fínsko, San Maríno a Slovinsko.
Uznesením vlády SR k návrhu na podpis Protokolu č. 16 z 18. septembra 2013, vláda SR vyjadrila svoj súhlas s podpisom protokolu s výhradou ratifikácie s pripomienkou prijatou na rokovaní vlády a ministrovi spravodlivosti SR uložila povinnosť predložiť na rokovanie vlády návrh legislatívnych opatrení potrebných na zabezpečenie vykonávania protokolu. Tým istým uznesením vlády bola podpredsedovi vlády a ministrovi zahraničných vecí a európskych záležitostí uložená úloha predložiť na rokovanie vlády návrh na ratifikáciu protokolu. Aj napriek odporúčaniu ministra spravodlivosti SR neratifikovať protokol, vládny návrh zákona č. 353/2014 Z. z., ktorým sa mení a dopĺňa zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony, zahŕňa aj návrh legislatívnych opatrení potrebných na zabezpečenie vykonávania protokolu. Tieto legislatívne zmeny nadobudnú účinnosť dňom nadobudnutia platnosti protokolu. Parlament SR schválil dňa 27.11.2014 vládny návrh zákona č. 353/2014 Z. z, ktorý v nadväznosti na protokol ustanil v § 109 Občianského súdneho poriadku[5] ďalší prípad prerušenia konania: „Najvyšší súd Slovenskej republiky konanie preruší, ak rozhodol, že požiada Európsky súd pre ľudské práva o vydanie poradného stanoviska k zásadným otázkam týkajúcim sa výkladu alebo uplatňovania práv a slobôd uvedených v Dohovore o ochrane ľudských práv a základných slobôd.“[6] Zároveň však platí, že Najvyšší súd SR môže v konaní pokračovať aj vtedy, ak Európsky súd pre ľudské práva poradné stanovisko nevydal a sú pre pokračovanie v konaní závažné dôvody. Trestný poriadok[7] bol touto novelou dotknutý zavedením možnosti prerušenia trestného stíhania v prípade, ak predseda senátu Najvyššieho súdu SR požiada Európsky súd pre ľudské práva o vydanie poradného stanoviska podľa protokolu.
Vzhľadom k tomu, že úprava súvisiaca s protokolom je vymedzená pre konkrétny subjekt (Najvyšší súd SR), na zavedenie obdobného mechanizmu pre Ústavný súd SR bola touto novelou navrhnutá aj zmena procesného predpisu pre konanie pred Ústavným súdom SR[8] takto: „Ústavný súd konanie preruší, ak vo veciach prerokúvaných podľa čl. 127 a 129 Ústavy rozhodol, že požiada Európsky súd pre ľudské práva o vydanie poradného stanoviska k zásadným otázkam týkajúcim sa výkladu alebo uplatňovania práv a slobôd uvedených v Dohovore o ochrane ľudských práv a základných slobôd."[9] Na rozdiel od mechanizmu prerušenia konania v prípade Najvyššieho súdu SR, navrhuje sa, aby Ústavný súd SR mohol pokračovať v konaní v prípade, ak poradné stanovisko nebude vydané aj bez požiadavky preukazovania závažných dôvodov.
Zdá sa, že SR sa krátko po tom, čo sa legislatívne pripravila na zabezpečenie vykonávania protokolu vyľakala a na dlho zmrazila ďalšie kroky smerujúce k jeho ratifikácii. Odpozorovať je to možné z toho, že podľa Plánu práce vlády SR na rok 2014 mal minister zahraničných vecí a európskych záležitostí predložiť v mesiaci jún 2014 na rokovanie vlády SR návrh na ratifikáciu protokolu. Splnenie tejto úlohy bolo odložené do 31.12.2018 s nasledovným odôvodnením: „Vyskytli sa prekážky, ktoré bránia iniciovaniu vnútroštátneho procesu ratifikácie Protokolu. Dňa 18. decembra 2014 vydal Súdny dvor EÚ stanovisko č. 2/13, na základe ktorého sa ratifikácia Protokolu nejaví v tomto čase ako vhodná. Súdny dvor EÚ v

[4] https://www.mzv.sk/web/smstrasburg/detail/-/asset_publisher/bZtjMy3iNwbo/content/slovensko-je-signatarom-16-protokolu-k-edlp/10182?p_p_auth=pjE6zLKR.
[5] Zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov
[6] Vládny návrh zákona č. 353/2014 Z. z., ktorým sa mení a dopĺňa zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony
[7] Zákon č. 301/2005 Z. z. Trestný poriadok v znení neskorších predpisov
[8] zákon č. 38/1993 Z. z. o organizácii Ústavného súdu Slovenskej republiky, o konaní pred ním a o postavení jeho sudcov v znení neskorších predpisov
[9] Vládny návrh zákona č. 353/2014 Z. z., ktorým sa mení a dopĺňa zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony

uvedenom stanovisku totiž dospel k názoru, že mechanizmus vydávania poradných stanovísk ESĽP zavedený Protokolom by mohol ohroziť charakteristické znaky a autonómiu práva EÚ a mohol by viesť k obchádzaniu konania o prejudiciálnej otázke pred Súdnym dvorom EÚ. Na základe uvedeného (a aj v nadväznosti na stanovisko Ministerstva spravodlivosti SR ako rezortu vecne príslušného na vykonávanie Protokolu) sa neodporúča iniciovať v súčasnosti proces ratifikácie Protokolu, ale počkať, ako sa po vydaní Stanoviska 2/13 vyvinie ďalšia diskusia o pristúpení EÚ k Dohovoru."[10] SR doposiaľ protokol neratifikovala.

4 EURÓPSKA ÚNIA A PROTOKOL Č. 16

Protokol rozpútal debaty aj na úrovni Európskej únie a to minimálne s ohľadom na dve kľučové oblasti:

1. pristúpenie EÚ k dohovoru a protokol a
2. prejudiciálne konanie verzus konanie podľa protokolu.

Súdny dvor EÚ vydal dňa 18. decembra 2014 na základe článku 218 ods. 11 ZFEÚ svoje Stanovisko 2/13 k návrhu medzinárodnej dohody – Pristúpenie Európskej únie k Európskemu dohovoru o ochrane ľudských práv a základných slobôd. V stanovisku upozorňuje na riziko ústavného prekrývania sa dvoch podobných mechanizmov - konania o prejudiciciálnej otázke podľa článku 267 ZFEÚ a konania podľa protokolu - najmä vo vzťahu tých základných práv zaručených Chartou, ktoré zodpovedajú právam priznaným v dohovore. Súdny dvor EÚ ďalej uvádza, že od okamihu, keď sa dohovor stane neoddeliteľnou súčasťou práva Únie, by sa mechanizmus zavedený protokolom mohol – najmä ak ide o práva zaručené Chartou, ktoré zodpovedajú právam priznaným v dohovore– dotknúť autonómie a účinnosti konania o prejudiciálnej otázke upraveného v článku 267 ZFEÚ. Hoci, ako sám priznáva, zamýšľaná dohoda neupravuje pristúpenie Únie ako takej k protokolu a tento protokol bol podpísaný 2. októbra 2013, teda po dohode rokovacích strán o návrhoch prístupových nástrojov, ku ktorej došlo 5. apríla 2013, zamýšľaná dohoda môže tým, že nestanovuje nič, pokiaľ ide o väzbu medzi mechanizmom zavedeným protokolom a konaním o prejudiciálnej otázke stanoveným v článku 267 ZFEÚ, narušiť autonómiu a účinnosť tohto konania. Stanovisko sa len veľmi skromne venuje prípadnému použitiu predchádzajúceho zapojenia súdneho dvora EÚ v rámci konania podľa protokolu iniciovaného členským štátom EÚ, no rovnako tak ho spája s nebezpečenstvom obídenia konania o prejudiciálnej otázke upraveného v článku 267 ZFEÚ.

Predstavme si situáciu, že by došlo k realizácii podľa protokolu tým, že národný súd členského štátu EÚ položí štrasburskému súdu v rámci vnútroštátneho konania otázku súvisiacu nielen so základným právom garantovaným dohovorom a jeho protokolmi, ale aj s niektorou z oblastí upravených právom Únie a Chartou. Za predpokladu pristúpenia Únie k dohovoru - pri použití predchádzajúceho zapojenia Súdneho dvora EÚ - by bolo najprv nevyhnutné rozhodnúť o tom, či o tej istej právnej otázke, ktorá je predmetom konania na štrasburskom súde už Súdny dvor EÚ rozhodoval. Ak by sa totiž štrasburskému súdu umožnilo rozhodovať o takejto otázke, znamenalo by to, že by sa mu priznala právomoc vykladať judikatúru Súdneho dvora EÚ. Uvedené by bolo ešte komplikovanejšie, ak by sa Súdnemu dvoru EÚ neumožnilo v rámci predchádzajúceho zapojenia rozhodnúť o výkladovej otázke týkajúcej sa sekundárneho práva EÚ (s výnimkou otázky platnosti). Zásada výlučnej právomoci Súdneho dvora na podanie konečného výkladu práva Únie by bola týmto nepochybne porušená. Načrtnutá situácia ale podľa nášho uváženia neodôvodňuje to, že už samotná existencia protokolu je podľa stanoviska 2/13 jednou z príčin nezlúčiteľnosti prístupovej dohody s článkom 6 ods. 2 ZEÚ a s protokolom č. 8 k článku 6 ods. 2 Zmluvy o Európskej únii o pristúpení Únie k Európskemu dohovoru o ochrane ľudských práv a základných slobôd. Pristúpenie či nepristúpenie Únie k dohovoru môže ovplyvniť členské

[10]Návrh na zrušenie a zmenu niektorých úloh z uznesení vlády Slovenskej republiky file:///C:/Users/MOHI/Downloads/vlastny_material_po_MPK_OPRAVENY_docx.pdf

štáty Únie len do takej miery, ako to bolo v prípade SR, ktorá sa, ako sme uviedli vyššie, rozhodla vyčkávať na ďalší postup Únie. Rozhodnutie Únie vo vzťahu k protokolu, či už pristúpi k dohovoru lebo nie, je dokonca celkom irelevantné, keďže viazanosť protokolom je dobrovoľná a ani jeho platnosť nezávisí od prijatia všetkými štátmi RE.
Nepovažujeme za vhodnú ani kritiku prístupovej dohody kvôli tomu, že neupravuje nijakú väzbu medzi mechanizmom zavedeným protokolom a konaním o prejudiciálnej otázke upraveným v článku 267 ZFEÚ. Nevidíme totiž nutnosť ani potrebu prepojenia týchto dvoch mechanizmov cez prístupovú dohodu. Nasilu zaviesť pravidlá by bolo v rozpore s princípom fakultatívnosti, na ktorom je mechanizmus advisory opinions postavený. Naopak, za možný prostriedok pre vymedzenie hraníc aplikovania týchto dvoch mechanizmov považujeme judikatúru.
Ako príklad možno uviesť, že za istých okolností môže mať pred obrátením sa na štrasburský súd prednosť obrátenie sa na Súdny dvor EÚ s návrhom na začatie prejudiciálneho konania. V tejto súvislosti možno poukázať na to, že Súdny dvor EÚ sa vo svojej judikatúre (rozsudok v spojených veciach C-188/10 a C-189/10 Melki a Abdeli z 22. júna 2010) už zaoberal otázkou, či vnútroštátna právna úprava ustanovujúca prednosť vnútroštátneho incidenčného konania kontroly ústavnosti pred prejudiciálnym konaním je v súlade s právom EÚ. Súdny dvor pritom s odkazom na predchádzajúcu judikatúru zdôraznil, že „prioritná povaha incidenčného konania kontroly ústavnosti vnútroštátneho zákona, ktorého obsah sa obmedzuje na vykonanie kogentných ustanovení smernice Únie, nemôže zasahovať do právomoci rozhodnúť o neplatnosti aktu Únie, a najmä smernice, ktorú má len Súdny dvor, keďže cieľom tejto právomoci je zaručiť právnu istotu zabezpečením jednotného uplatňovania práva Únie“. Doplnil, že „[v] rozsahu, v akom prioritná povaha incidenčného konania kontroly ústavnosti bude viesť k zrušeniu vnútroštátneho zákona, ktorý sa obmedzuje na vykonanie kogentných ustanovení smernice Únie, z dôvodu rozporu tohto zákona s vnútroštátnou ústavou, by totiž mohol byť Súdny dvor v praxi zbavený možnosti vykonať na žiadosť súdov dotknutého členského štátu rozhodujúcich vo veci samej preskúmanie platnosti uvedenej smernice z hľadiska rovnakých dôvodov súvisiacich s požiadavkami primárneho práva, a najmä práv priznaných Listinou základných práv Európskej únie, ktorej článok 6 ZFEÚ dáva rovnakú právnu silu, aká je priznaná Zmluvám.“ Z toho vyplýva, že „[p]redtým, než môže byť z hľadiska rovnakých dôvodov, ktoré vedú k spochybneniu platnosti tejto smernice, vykonaná incidenčná kontrola ústavnosti zákona, ktorého obsah sa obmedzuje na výkon kogentných ustanovení smernice Únie, sú vnútroštátne súdy, ktorých rozhodnutie nemožno napadnúť opravnými prostriedkami podľa vnútroštátneho práva, v zásade povinné položiť Súdnemu dvoru otázku na základe článku 267 tretieho odseku ZFEÚ týkajúcu sa platnosti tejto smernice a potom vyvodiť dôsledky, ktoré vyplývajú z rozsudku vydaného Súdnym dvorom v konaní o prejudiciálnej otázke, ak sa súd, ktorý dal podnet na začatie incidenčnej kontroly ústavnosti, už sám neobrátil na Súdny dvor s touto otázkou na základe druhého odseku uvedeného článku. Ak totiž ide o vnútroštátny transpozičný zákon s takým obsahom, má otázka, či je smernica platná, s ohľadom na povinnosť vykonať túto smernicu predbežnú povahu.“[11] Za istých okolností je tak potrebné uprednostniť kontrolu vykonávanú Súdnym dvorom EÚ vo vzťahu k smernici pred vnútroštátnou kontrolou ústavnosti, čo majú zohľadniť aj vnútroštátne súdy Slovenskej republiky vrátane Najvyššieho súdu Slovenskej republiky a Ústavného súdu Slovenskej republiky.[12] Rovnaké úvahy sú relevantné aj z hľadiska vzťahu medzi prejudiciálnym konaním na Súdnom dvore EÚ na jednej strane a konaním o poradnom

[11] DÔVODOVÁ SPRÁVA + Spoločná správa výborov NR SR k novele Občianskeho súdneho poriadku č. 353/2014 Z. z. Dostupná online: /http://www.najpravo.sk/dovodove-spravy/rok-2014/353-2014-z z.html?print=1#S p o l o %C4%8D n %C3%A1 s p r %C3%A1 v a/.
[12] Spojené veci C- 188/10 a C- 189/10 Aziz Melki a Sélim Abdeli

stanovisku na štrasburskom súde a naň nadväzujúcou prípadnou kontrolou ústavnosti v SR na strane druhej.
Aj keď Súdny dvor EÚ zrejme vníma vznik inštitútu poradných stanovísk ako možnú konkurenciu pre konania o prejudiciálnej otázke, podľa nášho názoru by bolo veľmi nešťastné už teraz označovať túto čoskoro reálnu možnosť členských štátov EÚ a priori za konanie v rozpore so Zmluvami. Možnosť obrátiť sa na štrasburský súd je vždy len dobrovoľná, zatiaľ čo vo vzťahu k otázkam výkladu alebo posúdenia platnosti ustanovení práva Únie tu existuje vedľa možnosti aj prejudiciálna povinnosť vnútroštátneho súdu poslednej inštancie. Prejudiciálna povinnosť podľa článku 267, odsek 3 ZFEÚ platí pre vnútroštátny súd, ktorý je posledným súdnym orgánom, pred ktorým sa môže uplatňovať právo Únie. V rámci SR je takýmto súdom „poslednej inštancie“ najvyšší súd alebo ústavný súd (uznesenie III. ÚS 207/09 z 28.7.2009). Všetky ostatné súdy SR majú prejudiciálnu možnosť podľa článku 267, odsek 2 ZFEÚ. Z uvedeného vyplýva, že Najvyšší súd SR a Ústavný súd SR môžu mať v jednom prípade nastoľujúcom otázky týkajúce sa výkladu alebo posúdenia platnosti ustanovení práva Únie prejudiciálnu povinnosť, no zároveň budú súdmi oprávnenými obrátiť sa so žiadosťou o vydanie poradného stanoviská k zásadným otázkam týkajúcim sa výkladu alebo uplatňovania práv a slobôd uvedených v dohovore alebo jeho protokoloch. Nepochybne odlišné sú účinky poradného stanoviska od účinkov prejudiciálneho rozhodnutia[13]. Máme za to, že súd oprávnený na použitie oboch inštitútov, bude pri svojom rozhodovaní v súvislosti s ich účinkami zvažovať, ktorý inštitút je z hľadiska sledovaného účelu vhodnejší.

ZÁVER

Zmyslom zavedenia inštitútu poradných stanovísk je, ako už bolo v úvode nášho príspevku uvedené, zintenzívniť interakciu medzi štrasburským súdom a národnými súdmi, ďalej vylepšiť uplatňovanie dohovoru a v neposlednom rade dosiahnúť, aby boli prípady uspokojivo riešené na národnej úrovni. Tento cieľ ale možno dosiahnúť až v dlhodobom časovom horizonte. Pokým sa dostavia takéto želané výsledky, inštitút vydávania poradných stanovísk bude pre štrasburský súd, momentálne zavalený takmer sto tisíc nevyriešenými prípadmi, predstavovať ďalšiu záťaž. Podľa článku 2 odsek 2 protokolu, poradné stanoviska bude vydávať veľká komora tvorená sedemnástimi sudcami, ktorá za posledných 5 rokov nevydala viac než 12-27 rozhodnutí ročne. Kľúčom k rýchlejšiemu dosiahnutiu očakávaných výsledkov zavedenia inštitútu poradných stanovísk a k postupnému odbremeňovaniu štrasburského súdu by podľa nášho názoru mohol byť správne zvolený systém výberu žiadostí. Súd by mal uprednostniť riešenie takých žiadostí, ktoré sa týkajú problémov vyskytujúcich sa v celom rade ďalších prípadov. Vízia odbremenenia štrasburského súdu zavedením ďalšej agendy sa zdá byť na prvý pohľad riskantná a nelogická, no umožnením národným súdom vyžiadať si poradné stanovisko ešte v rámci prebiehajúceho konania sa môže podariť minimalizovať počet prípadov, v ktorých národné sústavy budú rozhodovať odchylne od ustanovení dohovoru. A preto je zavedenie novej poradnej kompetencie Európskeho súdu pre ľudské práva podľa nášho názoru vítanou reformou štrasburského systému ochrany ľudských práv a základných slobôd s ohľadom na jeho vyťaženosť. Aj keď nejasná formulácia niektorých ustanovení protokolu v sebe nesie riziko rôznych interpretácií,

[13] Záväznosť prejudiciálnych rozhodnutí SD:

- Prejudiciálne rozhodnutia Súdneho dvora sú záväzné tak pre sudcu, ktorý prejudiciálnu otázku položil, ako aj pre všetky súdy 28 členských štátov;
- rozsudky Súdneho dvora o výklad aktu Únie majú retroaktívne účinky, pokiaľ ich Súdny dvor vo svojom rozhodnutí výslovne časovo neobmedzí;
- vnútroštátny sud má vždy možnosť položiť novú prejudiciálnu otázku;
- rozsudky Súdneho dvora o neplatnosti aktu Únie majú retroaktívne účinky ako pri výklade; vnútroštátny súd musí tieto akty Únie považovať za neplatné pre účely svojho rozhodnutia.

analýza textu pomáha objasniť väčšinu nejasností. Záverom konštatujeme, že poradné stanoviská majú predpoklad posilniť dialóg medzi štrasburským súdom a národnými súdmi, pomôcť objasniť a možno dokonca rozvinúť judikatúru štrasburského súdu a zreformovať štrasburský sytém ochrany ľudských práv požadovaným smerom.

Použitá literatura

1. C‑ 188/10 a C‑ 189/10 Aziz Melki a Sélim Abdeli, Spojené veci.
2. C 173/09, Elchinov v. Natsionalna zdravnoosiguritelna kasa, rozsudok z 5. októbra 2010, Zb.s. I-8889, bod 26.
3. Dôvodová správa+ Spoločná správa výborov NR SR k novele Občianskeho súdneho poriadku č. 353/2014 Z. z. 353/2014 Z. z., ktorým sa mení a dopĺňa zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony.
4. KORENICA, F. *The EU Accesion to the ECHR. Between Luxembourg´s Search for Authonomy and Strasbourg´s Credibility on Human Rights Protection.* Brusel: Springer, 2015. 416 s. ISBN 80-56899-65-4.
5. *Návrh na zrušenie a zmenu niektorých úloh z uznesení vlády Slovenskej republiky.*
6. Vládny návrh zákona č. 353/2014 Z. z., ktorým sa mení a dopĺňa zákon č. 99/1963 Zb. Občiansky súdny poriadok v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony.
7. Uznesenie Ústavného súdu SR II. ÚS 128/2011.

Kontaktní údaje

JUDr. Jana Vrabľová
Univerzita Pavla Jozefa Šafárika v Košiciach, Právnická fakulta
Kováčska 26, P.O.BOX A-45, 040 75 Košice, Slovenská republika
Tel: 00421944338221
email: jana.vrablova@student.upjs.sk

TRADÍCIA RÍMSKEHO INTERDIKTU VČERA A DNES

TRADITION OF ROMAN INTERDICTS YESTERDAY AND TODAY

Darina Kmecová

Abstrakt

Príspevok prináša pohľad na jeden z archaických právnych inštitútov rímskeho práva, ktorý je známy pod pojmom *interdictum* – interdikt. Tento právny inštitút má bohatú aplikačnú históriu a jeho základné črty možno spoznávať vďaka prepracovanej kazuistike, ktorá od prípadu k prípadu formovala jeho charakter. Autorka sa cez názorovú rôznorodosť významných romanistov snaží nájsť počiatok, pôvod tohto špecifického právneho prostriedku mimožalobnej prétorskej ochrany. Skúma, kedy vznikla tradícia využívania interdiktu v praxi rímskeho práva popri legisakčnom či formulovom procese. Poukazuje na dve protichodné nazerania na prvotné aplikačné zaradenie interdiktnej ochrany do *ius civile* a skúma, kam až siahajú jej korene. Príspevok ponúka náčrt základných medzníkov inštitútu rímskych interdiktov a polemizuje o dôvodoch jeho pomerne včasného vymiznutia z rímskej právnej úpravy.

Kľúčové slová: *interdikt, pôvod, rímske právo, súčasné právo*

Abstract

The article gives an insight into one of the archaic legal institutes of Roman law known as *interdictum* – interdict. This legal institute has a rich application history and its basic features can be recognized by a sophisticated case history that has shaped its character from case to case. The author strives to find the origin of this specific legal remedy for out of action praetorian protection, through the diversity of opinion of important Romanists. It examines the tradition of use of interdict in the legal practice of Roman law in addition to *legis actio* or formula process. She points to two opposing views on the primary application of interdicts protection to *ius civile* and examines where the roots reach. The paper provides a sketch of the basic notices of the institute of Roman interdicts and questions about the reasons for its relatively timely disappearance from Roman law.

Key words: *interdict, origins, Roman law, contemporary law*

1 INTERDIKT AKO PRÁVNY PROSTRIEDOK

Konflikt bol chtiac či nechtiac vždy súčasťou každodenného života akejkoľvek väčšej či menšej skupiny ľudí. Spory vznikali od nepamäti medzi krajinami, krajmi a panstvami a boli neraz riešené nespočetným množstvom právnych či bezprávnych bojov. Toto bola realita aj života rímskej pospolitosti, ale neboli to len ďalekosiahle boje, ktoré ju vnútorne rozbíjali, práve naopak, boli to drobné rozbroje a konflikty vznikajúce často medzi bežnými obyvateľmi Rímskej ríše, susedmi, manželmi, znepriatelenými rodmi, ktoré bolo potrebné riešiť pre zachovanie sociálneho zmieru a jednoty. Táto skutočnosť trápila predstavených rímskej spoločnosti, a preto už pred vyše dvetisíc rokmi hľadali spôsoby, ako zjednodušiť a zrýchliť vymoženie práv, a tak vrátiť do spoločnosti poriadok a právnu istotu. Jedným z prostriedkov doplnenia ochrany verejných, súkromných, ale aj náboženských záujmov bol právny inštitút rímskych interdiktov, menej známy pre súčasnosť, ale o to významnejší v histórii rímskeho práva popri klasickom rímskom procese. Tento špecifický typ právneho

prostriedku popri rímskej *actio* zaujímavo a prospešne dopĺňal právny systém tým, že poskytoval alternatívu jednoduchšieho a promptnejšieho riešenia konfliktných situácií rôzneho druhu.

Základná charakteristika rímskeho interdiktu je v romanistických kruhoch pomerne známa. *Interdictum*[1] v rímskom práve predstavoval jeden z prostriedkov mimožalobnej prétorskej ochrany, popri *restitutio in intergrum* (navrátenie do predošlého stavu), *praetoriae stipulationes* (prétorské stipulácie) a *missio possessionem* (navrátenie do držby).[2] Základné definície interdiktu nájdeme v najznámejších prameňoch rímskeho práva, ako sú napríklad Gaiove Inštitúcie a Justiniánske Inštitúcie:

Gai. Inst. 4, 139: *„Certis igitur ex causis praetor aut proconsul proncipaliter auctoritatem suam finiendis controversiis interpoint, quod tum maxime facit, cum de possessione aut quasi possessione inter aliquos centeditur. Et in summa aut iubet aliquid fieri aut fieri prohibet. Formulae autem et verborum conceptiones, quibus in ea re utitur, interdicta vocantur vel accuratius interdicta decretaque.“*[3]

Inst. 4, 15: *„Erant autem interdicta formae atque conceptiones verborum, quibus praetor aut iubebat aliquid fieri aut fieri prohibebat. quod tum maxime faciebat, cum de possessione aut quasi possessione inter aliquos contendebatur.“*[4]

Právny inštitút rímskych interdiktov je bohato zastúpený aj v iných prameňoch rímskeho práva, ako sú Justiniánske Digesta, ktoré jeho bohatú kazuistiku zhŕňajú v 43. knihe alebo Justiniánsky Kódex, ktorý sa jej venuje v 8. knihe. *Interdicta*, rozkazy alebo zákazy vydané prétorom na žiadosť jednej zo strán proti druhej strane slúžili akoby k „odstráneniu“ sporu medzi nimi, teda predstavovali konanie, v ktorom sa prétor neobmedzoval na to, aby dohliadal, ako strany vo veci uzatvoria dohodu (litiskontestáciu), ale nadviazal na sporné prednesenie požiadavky zo strany žalobcu, pričom strane druhej adresoval svoj rozkaz alebo zákaz. Tým sa výrazne posilnilo postavenie *magistratus maiores*, ktorý skrze autoritatívnu povahu[5] interdiktu realizovali svoju neohraničenú moc – *imperium.* Aj keď interdikt bol

[1] Pojem interdikt má svoj etymologický pôvod v latinskom jazyku, kde ho vyjadruje slovo *interdictum*, čo v preklade znamená zákaz, príkaz, prétorovo rozhodnutie. Tento pojem však vznikol z latinského slovesa *interdicere*, čo znamená zakázať (niekomu niečo), dať niekoho do kliatby, vynesenie rozsudku prétorom ako zmierovacím sudcom, ale aj podávať vysvetlenie. Iný výklad pojmu interdikt uvádza, že *interdictum* vzniklo spojením dvoch latinských slov, a to *inter* – medzi a *dicere* – hovoriť, nariadiť, čiže nariadenie medzi stranami. Uvedený etymologický pôvod prezrádza povahu interdiktu ako mimožalobného právneho prostriedku, ktorým prétor nariaďoval obvinenému (povinnej strane), aby niečo vykonal, alebo niečo vrátil, alebo sa zdržal určitého konania. Porovnaj Kolektív autorov. *Enciclopedia Italiana, Di Scienza, Lettere ed Arti.* vol. 19. Roma: Instituto della Enciclopedia Italiana Fondata da Giovanni Treccani, 1933. s. 374.; ŠPAŇÁR, J. *Dictionarium latino-slovacum.* Bratislava: Aedes Paedagogicae Slovacae, 1969. s. 338.; CONRAN, E. *The interdict.* Washington: The Catholic University of America, 1930. s. 1.

[2] Porovnaj TALAMANCA, M. *Istituzioni di Diritto Romano.* Miláno: Dott. A. Giuffré editore, 1990. s. 345 a nasl.

[3] „Ve snaze ukončit rozepře, zasahuje tedy v určitých případech prétor nebo prokonsul autoritativně svou mocí úřední. Nejčastěji to dělá tehdy, když mezi nějakými (osobami) vznikne spor o držbu či vztah, držbě podobný (quasi possessio). A úhrnem vzato, buď přikazuje, aby se něco stalo, anebo zakazuje, aby se něco stalo. Formule a slovní vyjádření, kterých při tom používá, nazývají se interdikty, anebo přesněji: interdikty a dekrety.“ Porovnaj KINCL, J. *Gaius: Učebnice práve ve čtyřech knihách.* Plzeň: Aleš Čeněk, 2007. s. 298-299.

[4] „Interdikty boli formálne slová, ktorými prétor alebo niečo nariadil alebo zakázal (*iubet autem prohibebat*). Urobil to predovšetkým vtedy, keď bola sporná držba alebo kvázi držba.“ Porovnaj BLAHO, P. *Justiniánske Inštitúcie.* Bratislava: IURA EDITION, 2000. s. 227.

[5] Autoritatívnosť rímskeho interdiktu definoval pojem *principaliter*, čo malo v spojitosti s interdiktnou ochranou niekoľko významov. Jedným z nich bolo „na začiatku“, „najprv“ alebo „pred predložením dôkazov“, čo znamenalo, že interdikt bol prétorom vydaný aj bez bližšieho preskúmania skutkového stavu veci, resp. bez predloženia dôkazov, čím sa odlišoval od rímskej *actio.* Porovnaj VÁŽNÝ, J. *Římský proces civilní.* Praha: Melantrich A.S., 1935. 127 s.

prétorom vydaný na podnet dotknutej strany alebo osoby, ktorá konala vo verejnom záujme, ktorý bol porušený alebo ohrozený, prétor bol ten, ktorý od samého začiatku rozhodoval o jeho osude.

2 POČIATKY INTERDIKTNEJ OCHRANY

Uvedené základné poznatky o právnom inštitúte rímskych interdiktov nám odhaľujú ich bazálne funkcie a ponúkajú nám pohľad do rímskeho civilného procesu v jeho jednotlivých časových obdobiach. Otázku, ktorú si však v súvislosti s týmto archaickým právnym prostriedkom vymožiteľnosti práv musíme položiť je, kam až siaha jeho tradícia? Odkedy môžeme datovať jeho počiatočné zavedenie do praxe rímskych úradníkov? V ktorom medzníku rímskych dejín môžeme hľadať jeho pôvod?

V otázke rímskych interdiktov, aj na základe nie príliš vysokého počtu prác[6], ktoré sa venovali ich podrobnému skúmaniu, rýchlo narazíme na skutočnosť, že nepatrili k najznámejším, najskúmanejším a rozhodne nie dostatočne prebádaným právnym prostriedkom, ktoré rímske právo zakotvovalo. Za základný dôvod rezervovanosti v záujme o tento právny inštitút medzi romanistami možno považovať, aj napriek rozmanitosti jeho aplikácie v rímskom práve, jeho pomerne včasné vymiznutie z neskoršej právnej úpravy a jeho nezachovanie a následné neprenesenie do novodobých kódexov. Princípy, na ktorých interdiktná ochrana stála, možno ostali zachované v súčasnej právnej úprave a sú čiastkovo prenesené do iných právnych inštitútov a prostriedkov ochrany, ale s pojmom interdikt a doslovným prevzatím interdiktnej ochrany v takej podobe, ako ju poznalo rímske právo sa už v aplikovateľnom práve súčasnosti pravdepodobne nestretneme. Toto všetko poznačilo jeho skúmanie, a preto informácie o jeho počiatkoch, pôvode či prvotnom zavedení sú často vágne, nepodložené, či navzájom sa vylučujúce. Pôvod interdiktnej ochrany však s určitosťou môžeme hľadať najmä v potrebe rímskej jurisprudencie zabezpečiť ochranu právnym záujmom, právam a nárokom, ktoré síce často požívali ochranu na podklade aplikácie iných právnych prostriedkov, ale táto bola nedostačujúca, alebo vo vymedzených prípadoch takúto ochranu nemali zabezpečenú vôbec. Posun v otázke počiatočnej úpravy interdiktov v rímskom práve uskutočnili nemeckí romanisti C. A. Schmidt a A. Ubbelohde, a taliansky romanista Vittorio Scialoja.[7] Bol to však romanista Keller, ktorý vo svojej štúdii pripustil v systéme *legis actiones* konanie *extra ordinem,* o ktorom tvrdil, že ho prétor už v uvedenom období legisakčného procesu vykonával dekrétom alebo interdiktom.[8]

Jednotliví romanisti začali počiatky interdiktnej ochrany hľadať v zavádzaní troch základných druhoch rímskeho procesu, v čase legisakčného, formulového a kogničného procesu. V postupnom skúmaní uvedených skutočností sa medzi romanistami začali vytvárať dva protichodné názory, pričom každý z nich videl prvotné zavedenie právneho inštitútu interdiktov v inom časovom období. Prvá skupina predpokladala interdiktnú ochranu už v čase aplikácie *legis actiones*, druhá skupina za základný časový medzník určila až zavedenie formulového procesu, dokonca až obdobie jeho postavenia ako riadneho typu

[6] Medzi najznámejšie z nich patria nasledujúce monografie a traktáty: SCHMIDT, C. A. *Das Interdiktenverfahren der Römer in geschichtlicher Entwickelung.* Leipzig: Druck und Verlag von Breitkopf und Härtel, 1853. 350 s.; UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck libri 43-44.* Milano: Societa editrice libraria, 1899. 844 s.; PFERSCHE, E. Die Interdicte des römischen Civilprocesses. Graz: Leuschner und Lubensky, 1888. 159 s. a iné.

[7] Porovnaj SCHMIDT, C. A. *Das Interdiktenverfahren der Römer in geschichtlicher Entwickelung.* Leipzig: Druck und Verlag von Breitkopf und Härtel, 1853. 350 s.; UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck libri 43-44.* Milano: Societa editrice libraria, 1899. 844 s.; SCIALOJA, V. *Procedura civile romana: esercizio e difesa dei diritti.* Rím: ARE, 1936. 370 s.

[8] Porovnaj KELLER, F. L. *Der Romische Civilprozess und die Actioneni.* Leipzig: Tauchnitz, 1883. § 22.

konania, približne v čase Rímskej republiky, kedy úplne nahradil prísne formálny proces piatich základných legisakcií.[9]

V názorovej rôznorodosti sa vytvorilo niekoľko tvrdení, ktoré sa snažili nájsť počiatky interdiktnej ochrany v najstarších prameňoch rímskeho práva. Príkladom je jedno z tvrdení Wacha[10] na ktoré vo svojej práci poukázal právny romanista F. L. Keller, ktorý prvotný medzník zavedenia interdiktnej ochrany situoval až do roku 215 pred Kr.:

Livio *Ab Urbe condita* 25, 1, 11: *„M. Aemilio praetori urbis negotium ab senatu datum est, eis religionibus populus liberaret. Is et in contione senatus consultum recitavit et edixit, ut quicumque libros vaticinos precationesve aut artem sacrificandi conscriptam haberet, eos libros omnes litterasque ad se ante Kal. Apriles deferret, neu quis in publico sacrove loco novo aut externo ritu sacrificaret.“* Wach opisoval a svoju pozornosť upriamoval na slovné spojenie *„neu quis in publico sacrove loco novo aut externo ritu sacrificaret“*. Na uvedené formulácie poukazoval najmä z dôvodu, že v nich videl nepriamy odkaz na použitie interdiktnej ochrany pod záštitou zdanlivo korešpondujúceho interdiktu *ne quid in loco sacro fiat* alebo interdiktu *ne quid in loco publico vel itinere fiat*, ktoré sú zakotvené v 43. knihe 6. a 8. titule Justiniánskych Digest. Iní romanisti, Ubbelohde či Biscardi, sa s uvedeným názorom Wacha nestotožňovali. Apelovali na fakt, že okrem podobnosti formulácií s vybranými druhmi interdiktov nič nenasvedčovalo tomu, že táto stať odkazovala na ich použitie, práve naopak, to, že v danom výroku absentuje pojem *interdictum,* nepodopiera možnosť jeho vtedajšej aplikácie. Preto uvedený medzník považovali za nedôveryhodný.[11]

Iný názor vyslovil romanista G. CH. Burchardi[12], ktorý hľadal a videl prvotnú informáciu o zavedení interdiktnej ochrany v Paulovom diele *Fragmenta Vaticana* 310 a 311:

310 – *„Perficitur donatio in exceptis personis sola mancipatione vel promissione, quoniam neque Cinciae legis exceptio obstat neque in factum si non donationis causa mancipavi vel promisi me daturum; idque et divus Pius rescripsit.“*

311 – *„Sed in persona non excepti sola mancipatio vel promissio non perficit donationem. In rebus mobilibus etiamsi traditae sint, exigitur, ut et interdicto utrubi superior sit is cui donata est, sive mancipi mancipata sit sive nec mancipi tradita.“*

Uvedené časti diela odkazujú na *lex Cincia*, ktorú datujeme do roku 204 pred. Kr., zároveň však používajú pojem *interdicto utrubi*, ktorý nápadne poukazuje na jeden z držobných interdiktov – *interdictum utrubi*. Na podklade týchto skutočností Burchardi vyslovil názor, že interdikt *utrubi* už v čase aplikácie *lex Cincia* musel existovať, čo znamená, že interdiktná ochrana by mala siahať minimálne do uvedeného obdobia. Ubbelohde sa k takémuto chápaniu neprikláňal, aj keď vo svojej práci naň odkazoval, avšak v duchu nie dostatočne verifikovateľného medzníka interdiktnej ochrany. Ubbelohde tejto formulácii pripisoval s najväčšou pravdepodobnosťou technické použitie pojmu interdikt, spolu s pojmom *utrubi*, pričom predpokladal, že pojem *interdicto* tu bol použitý skôr ako všeobecný pojem zákaz, ako výsledok doktrinálneho spracovania klasickej judikatúry, k čomu sa vo svojej práci prikláňal aj romanista Schmidt.[13]

---

[9] GANDOLFI, G. *Contributo allo studio del processo interdittale romano.* Milano: Giuffré, 1955. s. 117.
[10] KELLER, F. L. *Der Romische Civilprozess und die Actioneni.* Leipzig: Tauchnitz, 1883. pozn. 863.
[11] Porovnaj BISCARDI, A. *La protezione interdittale nel processo romano.* Padova: CEDAM, 1938. s. 95. a UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck, libri 43-44.* Miláno: Societa editrice libraria, 1899. s. 652.
[12] Porovnaj BURCHARDI, G. CH. *Lehrbuch des Romischen Rechts II.* Stuttgart: A Liesching, 1854. s. 153.
[13] Porovnaj UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck, libri 43-44.* Miláno: Societa editrice libraria, 1899. s. 651.

Medzi iné viac či menej overiteľné medzníky dejín, ktoré mohli priblížiť prvotné zakotvenie inštitútu interdiktov do rímskeho práva, bolo napríklad prezentovanie jednej z Plautových komédií pod názvom *Stichus* v roku 200 pred Kr.[14] Tento neprávnický text však nepriamo informuje o interdikte *utrubi*, čo podčiarklo skutočnosť, že už v tomto období bola jeho aplikácia v spoločnosti známa, a teda v uvedenom období už právny inštitút interdiktov musel existovať. Tento názor zastávali viacerí romanisti ako Bekker, Keller, Ubbelohde či Biscardi.[15] Ďalší medzník datujeme v období aplikácie formulového procesu a súvisí s *lex Agraria* z roku 111 pred Kr.[16]

Medzi významnejšie diela, ktoré približujú právne zakotvenie interdiktnej ochrany sú Cicerove diela – *Pro Tullio* a *Pro Caecina*[17], ktoré sú spomedzi už uvedených diel novšieho dáta a možno ich zaradiť do obdobia rokov 72 a 69 pred Kr., kedy ich Cicero predniesol. Tieto diela podávajú informáciu najmä o interdiktoch držobnej ochrany a tiež o predchodcovi držobných interdiktov interdikte *quod vi aut clam*. Úryvky z Cicerových diel možno podľa uvedených rokov datovať do obdobia aplikácie *formulae in factum*. Gandolfi však uvažoval o tom, že keďže pracujú (aj na uvedené obdobie) s pomerne archaickými pojmami, ako sú napríklad *apud maiores nostros, vetus est et maiorum exemplo, antea, fuit* či *solebant,* musia byť a s veľkou pravdepodobnosťou sú omnoho staršieho dáta. Na podklade týchto poznatkov Gandolfi nevylučoval, že interdikty, s ktorými pracuje Cicero v uvedených prejavoch boli aplikované omnoho skôr, ešte v čase *legis actiones*.[18] Svoje tvrdenia podopiera poznatkami viacerých romanistov, ktorí predpokladali, že interdikty, keďže poskytovali ochranu záujmom, ktorým poskytoval ochranu *formulae in factum,* z časového hľadiska museli byť do civilného práva zakotvené ešte pred týmto formulovým procesom, pretože ich zakotvenie do *ius civile* by po zavedení *formulae in factum* už nemalo zmysel.[19] Aj to bol jeden z dôvodov, prečo niektorí romanisti (ako napríklad Schmidt, Ubbelohde a Scialoja) začali pôvod interdiktnej ochrany skúmať už za aktívnej aplikácie *legis actiones*, pričom prišli k záveru, že interdikty v porovnaní s legisakčnými žalobami boli prepracovanejšie, mali širší záber, boli všeobecnejšie a zjednodušovali civilný proces, teda skôr pripomínali menej formálnu aplikáciu formulového procesu, a preto sa domnievali, že ich pôvod možno vidieť buď ešte pred zavedením formulového procesu, alebo v rovnakom čase popri vytváraniu formulového procesu.

---

[14] Porovnaj Plautus *„Stichus“* - 5, 4, 14: „*Sagar. Uter amicam utrubi adcumbamus? St. abi tu sane superior.“* a 5, 5 9: *„Steph. utrubi accumbo? Sa. utrubi tu vis? Steph. cum ambobus volo nam ambos amo.“*

[15] Porovnaj BEKKER, E. I. *Die Aktionem des romischen Privatrechts: Pratorisches richterliches kaiserliches Recht*. Berlin: F. Vahlen, 1873. s. 56.; KELLER, F. L. *Der Romische Civilprozess und die Actioneni.* Leipzig: Tauchnitz, 1883. pozn. 863.; UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck, libri 43-44.* Miláno: Societa editrice libraria, 1899. s. 650.; BISCARDI, A. *La protezione interdittale nel processo romano.* Padova: CEDAM, 1938. s. 103.

[16] Lex Agraria 18-19: *„Sei quis eorum, quorum ager supra scriptus est, ex possessione vi eiectus est, quod eius is quei eiectus est possederit, quod neque vi neque clam neque precario possederit ab eo, quei eum ea possessione vi eiecerit: quem ex h. l. de ea re in ious deicere oportebit, sei is quei ita eiectus est, ad eum de ea re in ious adierit ante eidus Martias, quae post h. l. rog. primae erunt, facito, utei is, quei ita vi eiectus est, in eam possessionem unde vi eiectus est, restituatur.“*

[17] *Pro Tullio* 19, 44: *„Fuit illud interdictum apud maiores nostros de vi, quod hodie quoque est.“*
Pro Caecina 13, 36: *„Qui dies totos aut vim fieri vetat aut restitui factum iubet, qui de fossis de cloacis, de minimis aquarum itinerumque controversiis interdicit...“*
Pro Caecina 16, 45: *„At vero hoc quidem tam vetus est et maiorum exemplo multis in rebus usitatum...“*
Pro Caecina 17, 49: *„Quid destrusum dicesne? Nam eo verbo antea Praetores in hoc interdicto uti solebant...“*

[18] GANDOLFI, G. *Contributo allo studio del processo interdittale romano*. Milano: Giuffré, 1955. s. 121.

[19] O prepojenosti interdiktnej ochrany a ochrany zabezpečovanej formulovým procesom hovoria aj obdobné právne prostriedky, za použitia ktorých sa jeden či druhý proces aplikoval. Príkladom sú *interdictum Salvianum – actio Serviana, interdictum de migrando – actio pigneraticia*. Porovnaj METZGER, E. An Outline of Roman Civil Procedure. In *Roman legal tradition*, č. 9, Glasgow: University of Glasgow School of Law, 2013, s. 1-30.

Z uvedeného nám teda vyplýva hneď niekoľko dôležitých skutočností. Interdikty sa svojím charakterom približovali k formulovému procesu, avšak nemožno vylúčiť ani prameňmi podloženú historickú blízkosť s legisakčným procesom. Na podklade týchto poznatkov možno s určitosťou tvrdiť, že počiatky interdiktov siahajú do obdobia pred naším letopočtom a s odkazom na pojmové zachytenie v rôznych historických textoch možno predpokladať, že ich prvotná aplikácia bola uskutočnená už v období 3. - 2. storočia pred Kr., čím sa však nevylučuje aj skoršia aplikácia interdiktov v rímskom procese, ako to vo svojich štúdiách deklarujú vyššie uvedení romanisti. Postupným vývojom a zdokonaľovaním interdiktnej ochrany sa zastrešila bohatá oblasť rôznorodých práv a právnych záujmov. Ich počet sa dnes odhaduje na približne 60 druhov interdiktov.

3 NAMIESTO ZÁVERU

Rímsky interdikt má bohatú históriu, avšak aj napriek prepracovanej kazuistike, množstve prípadov, na ktoré sa v minulosti aplikoval, princípom na ktorých bol postavený, dnes by sme ho už márne hľadali v niektorom z právnych poriadkov súčasného práva. Napriek mnohým právnym prostriedkom, zásadám či terminologickému bohatstvu rímskeho práva, ktoré sa stalo súčasťou novodobých kódexov práva, nielen slovenský právny poriadok už s uvedeným právnym inštitútom nepracuje. Dôvodom je možno skutočnosť, že aj napriek jeho rýchlemu vývoju pomerne skoro, oproti iným právnym inštitútom, vymizol z aplikačnej praxe a v rímskom práve bol úplne zatienený jednoduchými žalobami.

Pôvod, ktorým sa tento právny inštitút vyznačoval však dokazuje, že jeho aplikácia v praxi, najmä v rímskom klasickom práve, bola viac než žiaduca. Počet pribúdajúcich druhov interdiktov znamenal jeho postupné zdokonaľovanie a vyššiu mieru prepracovanosti, čo však mohlo v neskorších obdobiach spôsobiť stratu prehľadnosti, neformálnosti a jednoduchosti, čo boli základné dôvody jeho prvotného zavedenia do aplikačnej praxe. Aj napriek týmto negatívnym predpokladom právny inštitút rímskych interdiktov rozšíril ochranu práv a rozličných právnych záujmov, v čase jeho zavedenia zmiernil prílišný formalizmus rímskeho procesného práva, rozšíril pôsobnosť prétora ako vyššieho rímskeho magistráta a v neposlednom rade obohatil históriu o nové možnosti nazerania na vymožiteľnosť práva v spoločnosti.

Tento príspevok bol spracovaný v rámci projektu VVGS-2016-272: *„Vymožiteľnosť práva v kontexte vývoja spoločnosti – právne, historické a politologické východiská a problémy aplikačnej praxe.“*

Použitá literatúra

1. BEKKER, E. I. *Die Aktionem des romischen Privatrechts: Pratorisches richterliches kaiserliches Recht*. Berlin: F. Vahlen, 1873. 371 s. ISBN *neznáme*
2. BISCARDI, A. *La protezione interdittale nel processo romano.* Padova: CEDAM, 1938. 158 s. ISBN *neznáme*
3. BLAHO, P. *Justiniánske Inštitúcie.* Bratislava: IURA EDITION, 2000. 439 s. ISBN 80-887-1580-6.
4. BURCHARDI, G. CH. *Lehrbuch des Romischen Rechts II.* Stuttgart: A Liesching, 1854. 378 s. ISBN *neznáme*
5. CONRAN, E. *The interdict.* Washington: The Catholic University of America, 1930. 163 s. ISBN *neznáme*
6. GANDOLFI, G. *Contributo allo studio del processo interdittale romano.* Milano: Giuffré, 1955. 168 s. ISBN *neznáme*

7. *Juris civilis ecloga in qua Ulpiani regularum liber singularis Pauli sententiarum libri V, Gaii institutionum commentarii IV, Vaticana juris romani fragmenta, et breviora quaedum veteris juris prudentiae monumenta continentur*. Bruxellis: Ad. Walhen, 1837. 238 s. ISBN *neznáme*
8. KELLER, F. L. *Der Romische Civilprozess und die Actioneni.* Leipzig: Tauchnitz, 1883. 494 s. ISBN *neznáme*
9. KINCL, J. *Gaius: Učebnice práve ve čtyřech knihách.* Plzeň: Aleš Čeněk, 2007.326 s. ISBN 978-80-7380-054-3
10. Kolektív autorov. *Enciclopedia Italiana, Di Scienza, Lettere ed Arti.* vol. 19. Roma: Instituto della Enciclopedia Italiana Fondata da Giovanni Treccani, 1933. 1063 s. ISBN *neznáme*
11. METZGER, E. An Outline of Roman Civil Procedure. In *Roman legal tradition*, č. 9, Glasgow: University of Glasgow School of Law, 2013, s. 1-30.
12. PFERSCHE, E. Die Interdicte des römischen Civilprocesses. Graz: Leuschner und Lubensky, 1888. 159 s. ISBN *neznáme*
13. SCIALOJA, V. *Procedura civile romana: esercizio e difesa dei diritti.* Rím: ARE, 1936. 370 s. ISBN *neznáme*
14. SCHMIDT, C. A. *Das Interdiktenverfahren der Römer in geschichtlicher Entwickelung.* Leipzig: Druck und Verlag von Breitkopf und Härtel, 1853. 350 s. ISBN *neznáme*
15. ŠPAŇÁR, J. *Dictionarium latino-slovacum.* Bratislava: Aedes Paedagogicae Slovacae, 1969. 1316 s. ISBN *neznáme*
16. TALAMANCA, M. *Istituzioni di Diritto Romano.* Miláno: Dott. A. Giuffré editore, 1990. 829 s. ISBN 88-14-02222-4
17. UBBELOHDE, A. *Comentario alle Pandette di Frederico Gluck libri 43 - 44.* Milano: Societa editrice libraria, 1899. 844 s. ISBN *neznáme*
18. VÁŽNÝ, J. *Římský proces civilní.* Praha: Melantrich A.S., 1935. 127 s. ISBN *neznáme*

Kontaktné údaje
JUDr. Darina Kmecová
Katedra dejín štátu a práva, PF UPJŠ Košice
Kováčska 26, 040 75 Košice
Slovenská republika
email: darina.kmecova@student.upjs.sk

THEMATIC DOMAIN | VIII.

PRŮMYSLOVÉ INŽENÝRSTVÍ

INDUSTRIAL ENGINEERING

NUMBER OF PAPERS: 2



REGULÁCIA VÝŠKY HLADINY NA LABORATÓRNOM MODELY ARMFIELD PCT40

LEVEL CONTROL IN ARMFIELD PCT40 LABORATORY MODULE

Diana Ráškayová, Marek Laciak, Milan Durdán

Abstrakt

V príspevku je popísaná multifunkčná stanica Armfield PCT40, veľká procesná nádoba, ktorá je súčasťou laboratórneho modelu a tiež potrebný softvér pre ovládanie multifunkčnej stanice. Príspevok poskytuje návod ako pracovať s multifunkčným zariadením tohto typu a návod ako realizovať praktické úlohy. Cieľom je poskytnúť užívateľom postup pre realizáciu spojitej regulácie pomocou PID regulátora a návrh riadenia pre reguláciu výšky hladiny. Navrhnúť PID regulátor a nadobudnuté parametre aplikovať do praktických úloh.

Kľúčové slová: *PCT40, meranie výšky hladiny, regulácia výšky hladiny*

Abstract

The paper describes the Armfield PCT40 multifunctional station, a large process vessel that is part of the laboratory model, and the software needed to control the multifunctional station. The paper provides instructions on how to work with a multifunction device of this type and how to implement practical tasks. The aim is to provide the user with a procedure for the implementation of continuous regulation using the PID controller and a control design for level control. Design the PID controller and apply the acquired parameters to practical tasks.

Key words: *PCT40, level measurement, level control*

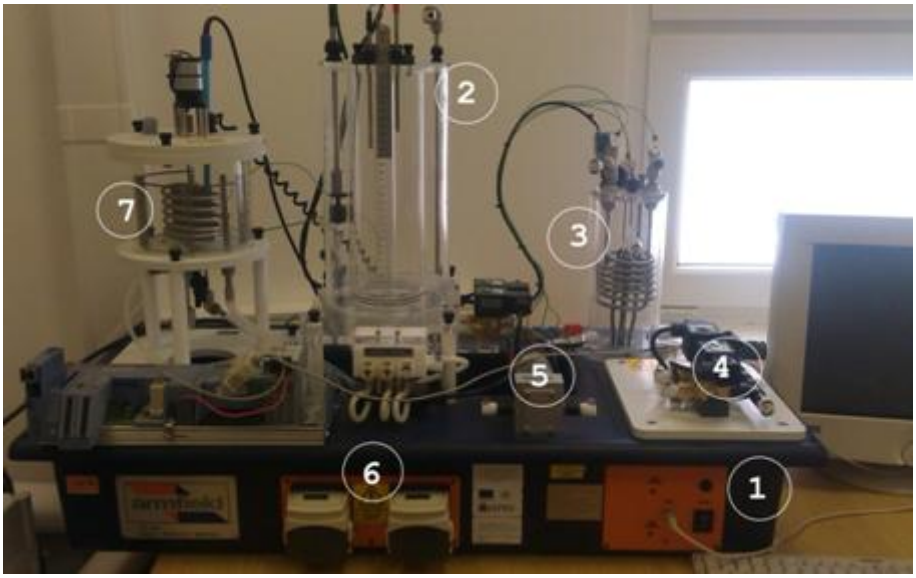
1 ÚVOD

V súčasnosti sa kladú veľké požiadavky na presnosť riadenia procesov a na ich regulačný pochod. Meria sa nielen za účelom riadenia, ale tak isto za účelom získania charakteristík procesu, či už sú to charakteristiky statické alebo dynamické. Pri vykonávaní merania je dôležitá presnosť merania s akou získavame namerané hodnoty. Rozsiahla škála meracích metód umožňuje nájsť optimálne riešenie pre každú úlohu. Neexistuje však metóda, ktorá by bola univerzálna a ktorá by sa hodila na každú aplikáciu. Vždy však platí, že treba použiť meraciu metódu, ktorá spoľahlivo funguje pre danú aplikáciu a vyhovuje aj po ekonomickej stránke. K meraniu výšky hladiny patrí kontinuálne meranie výšky hladiny kvapalín a sypkých materiálov, ďalej limitné meranie, tzv. detekcia prítomnosti média, ale aj meranie fázového rozhrania dvoch kvapalín alebo sypkého materiálu v kvapaline. Úlohy sú rozmanité a podobne je to aj s meracími metódami, ktoré prichádzajú do úvahy. Výber siaha od vibračných vidličiek, ktoré sa používajú na limitné meranie vo všetkých oblastiach priemyslu, až po rádiometrické metódy, ktoré sa používajú v extrémnych podmienkach

Multifunkčná stanica PCT40 dáva možnosť oboznámiť sa so základnými princípmi merania a riadenia rôznych procesov. Systém je riadený počítačom a softvérom s mnohými funkciami a tak isto s možnosťou zaznamenávania priebehu meraných a riadených veličín v reálnom čase. [1,2]

2 MULTIFUNKČNÁ STANICA ARMFIELD PCT40

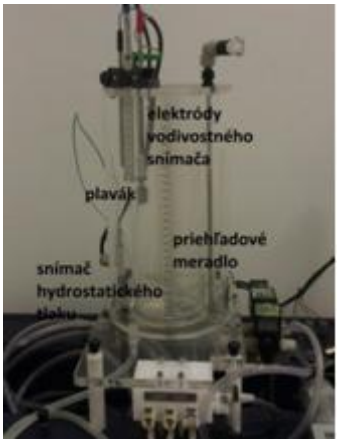
Multifunkčný systém ARMFIELD PCT40 umožňuje zaznamenávať priebeh meraných a riadených veličín v reálnom čase. Používateľ môže meniť parametre riadenia a analyzovať priebeh procesov pre rôzne nastavenia systému. Obrázok 1 znázorňuje kompletnú zostavu multifunkčného výukového systému. Zostava je tvorená základným modulom PCT40 spolu s prídavnými modulmi PCT41 a PCT42. [6,7]



Obr. 1: Multifunkčný systém Armfield
(1- nosná konzola, 2- veľká procesná nádoba, 3- malá procesná nádoba, 4- solenoidové ventily, 5- zubové čerpadlo, 6- peristaltické čerpadlá, 7- reaktor s tepelným výmenníkom a miešadlom)

2.1 Procesná nádoba pre meranie výšky hladiny

Laboratórne úlohy venované meraniu a regulácii hladiny využívajú veľkú procesnú nádobu multifunkčného systému (zásobník na kvapalinu). Veľká procesná nádoba predstavuje model prevádzkovej nádrže, ktorá je opatrená potrebnými elementmi pre pripojenie ovládacích ventilov a čerpadiel pre prítok a odtok vody a je vybavená niekoľkými snímačmi pre meranie polohy hladiny náplne.



Obr. 2: Veľká procesná nádoba so snímačmi na kvapalinu

Zásobník na kvapalinu tzv. procesnú nádobu tvoria dve valcové nádoby so sústredeným uložením. Napúšťací priestor tvorí medzikružie týchto dvoch valcových

nádob. Model sa používa pre simuláciu regulácie výšky hladiny. Pri napúšťaní zásobníku je možné použiť dva vstupy a k vypúšťaniu tri výstupy. Snímanie výšky hladiny sa môže vykonávať buď pomocou diferenciálneho, tlakového, alebo ultrazvukového snímača. Zásobník tiež obsahuje plavák pre meranie limitnej výšky hladiny a je opatrený prepadovým otvorom, aby nedošlo k preplneniu zásobníka. Platí však, že objemový prietok napúšťania nesmie byť väčší ako objemový prietok odtoku kvapaliny. [6,7]

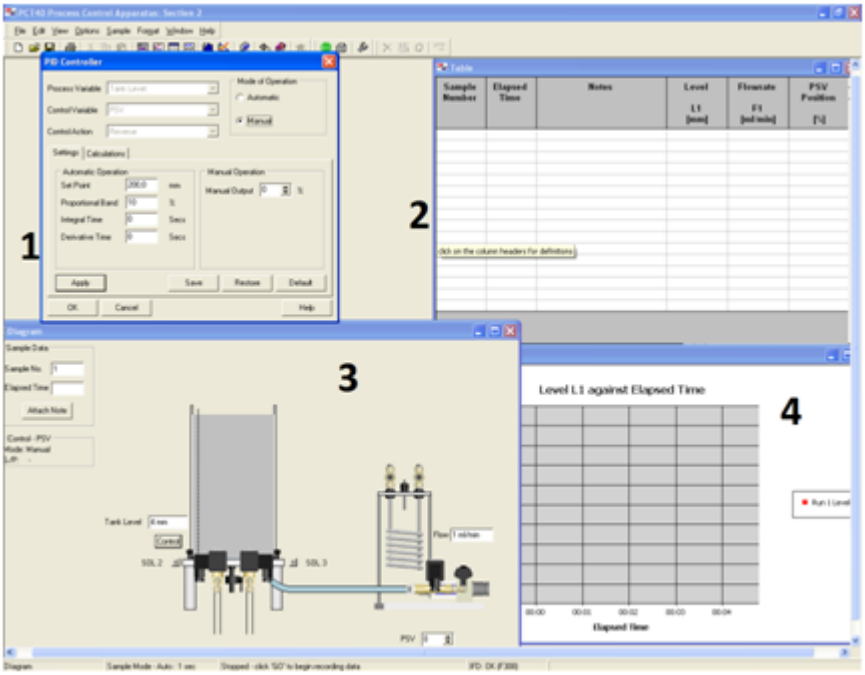
2.2 Softvér pre PCT40

Firma Armfield dodáva svoj vlastný softvér pre komunikáciu modelu s počítačom resp. pre obsluhu. Ide o program od firmy Armfield Limited (viď obr. 3).



Obr. 3: Program od firmy Armfield Limited

Program je optimalizovaný pre užívateľské použitie, neumožňuje však detailnejšie nastavenie regulátorov alebo sledovanie čiastkových technologických parametrov (obr. 4).



Obr. 4: Rozhranie pre reguláciu výšky hladiny v zásobníku na kvapalinu
(1-panel regulátora, 2-tabuľka, 3-schéma, 4-grafické zobrazenie)

3 NÁVRH REGULÁCIE VÝŠKY HLADINY

Najpresnejšiu reguláciu (minimálnu regulačnú odchýlku) dosiahneme pomocou integračného regulátora. Jeho nevýhodou je však malá rýchlosť. Preto sa kombinuje s proporcionálnym regulátorom a pre najväčšie nároky na rýchlosť regulácie aj s regulátorom derivačným. V každom prípade však bude kvalita regulácie závisieť aj od vlastností regulovanej sústavy. Z tohto pohľadu je nutné optimálne nastavenie regulátora. Najlepšie výsledky dosiahneme, ak nastavíme konštanty regulátora v prevádzkovom zapojení s regulovanou sústavou. V praxi sa z takýchto empirických metód najviac osvedčila a najznámejšou stala Ziegler-Nicholsova metóda, ktorá je určená najmä pre nastavenie kombinovaných regulátorov PI a PID. Dáva menšie tlmenie prechodového deja, preto je nutné nastaviť zosilnenie regulátora na menšiu hodnotu, ako udáva táto metóda. [3,4,5]

Postup nastavenia pre prípad známej prechodovej charakteristiky je nasledovný. Ak poznáme prechodovú charakteristiku regulovanej sústavy, môžeme určiť dobu prieťahu T_u a dobu nábehu T_n a zo statického prenosu aj zosilnenie regulovanej sústavy $K_S = \Delta y/\Delta u$, alebo tzv. činiteľ autoregulácie $S = 1/K_S$. Za predpokladu, že $T_u < T_n$, platí $T_{krit} = 4\ T_u$ a teda môžeme použiť optimálne parametre pre jednotlivé regulátory tak, že ich nastavíme podľa vzťahov využívajúcich dobu prieťahu T_u, dobu nábehu T_n a zosilnenie sústavy K_S, súhrnne uvedených v tabuľke č. 1. [3,4,5]

Tab. 1 Optimálne nastavenie parametrov regulátora

	K	T_I	T_D
P	$\frac{T_n}{T_u} S$	-	-
PI	$0{,}9\frac{T_n}{T_u} S$	3,5 T_u	-
PID	$1{,}25\frac{T_n}{T_u} S$	2 T_u	0,5 T_u

Celkové statické zosilnenie regulačného obvodu je K_{opt}/S. Potom K_{opt} upravíme tak, aby ani pri najväčšom odľahčení sústavy nedošlo k jej rozkmitaniu. Ak máme možnosť merať aj prechodovú charakteristiku regulačného obvodu, potom upravíme dodatočne konštanty regulátora tak, aby boli čo najlepšie splnené požiadavky na čo najmenšie regulačné plochy podľa integrálnych kritérií.

Pri nastavovaní parametrov musíme však dávať pozor, či sa jedná o regulátor bez interakcie alebo s interakciou, t.j. so vzájomným ovplyvňovaním parametrov regulátora. V prípade vzájomnej interakcie musíme tento fakt pri nastavovaní parametrov regulátora zohľadniť. [3,4,5]

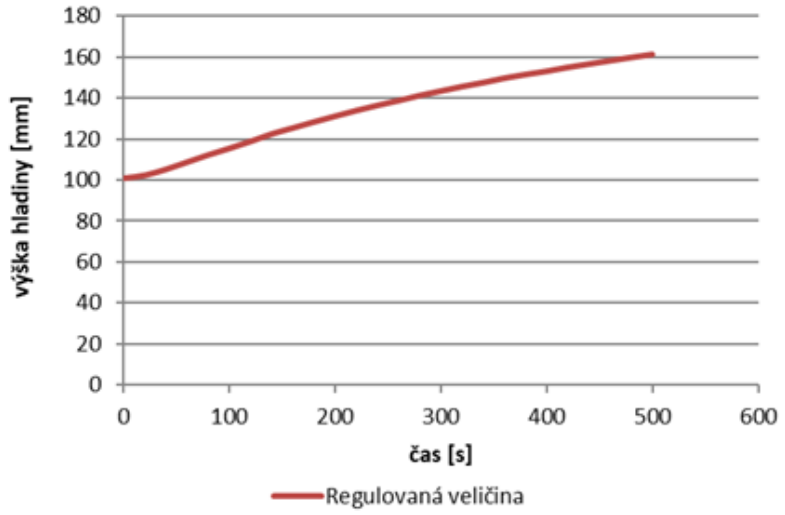
4 SPOJITÁ REGULÁCIA VÝŠKY HLADINY S PID REGULÁTOROM

Po spustení programu sa nám zobrazí uvítacie okno programu ArmSoft. Zvolíme si niektorú z ponúkaných možností. Pri dvojpolohovej regulácii hladiny s použitím plavákového snímača a pri riadení hladiny s využitím diferenčného vodivostného snímača zvolíme možnosť „*Selection 1: Level Control (inflow)*“ naopak pri riadení hladiny proporcionálnym solenoidovým ventilom a pri spojitej regulácii hladiny s PID-regulátorom a proporcionálnym ventilom zvolíme možnoť „*Selection 2: Level Control (inflow)*“. Zvolený výber potvrdíme tlačidlom „*Load*“.

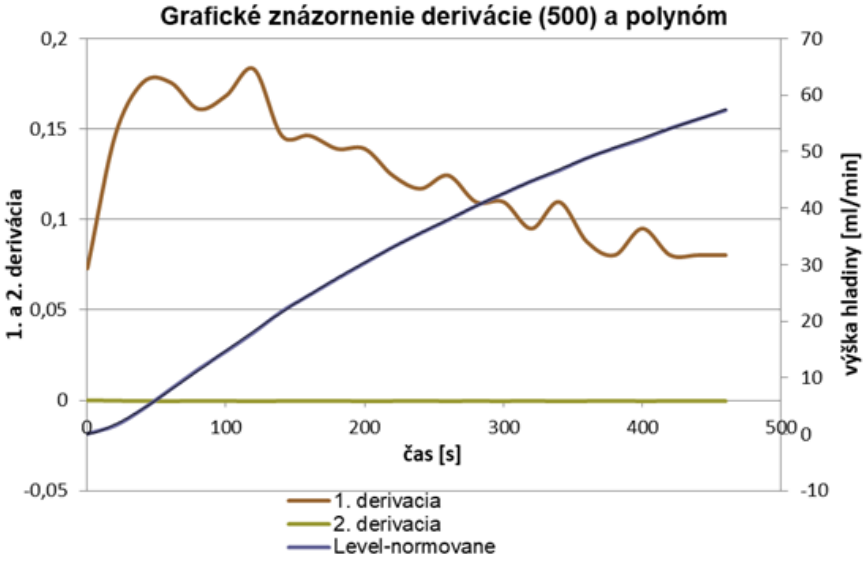
Po tomto základom nastavení sa nám zobrazí uvítacia obrazovka programu. Uvítacie okno si zväčšíme na celú obrazovku a v menu „*Window*“ si zvolíme položku „*Tile*“. Zavrieme okno „*Presentation*“ a zobrazí sa nám obrazovka obsahujúca panel regulátora, tabuľka, schéma a graf. Takýmto spôsobom máme pripravený program na meranie a reguláciu výšky hladiny a následné zaznamenávanie dát. Po zvolení „*Section 2*“ a stlačení tlačidla „*Control*“ vidíme dialógové okno programu „*PID Controller*“. V okne „*PID Controller*“ si nastavíme žiadanú hodnotu výšky hladiny 200 mm.

4.1 Výpočet parametrov regulátora z 500 hodnôt

Na obrázku 5 môžeme vidieť priebeh plnenia procesnej nádoby multifunkčného systému Armfield PCT40. Meraním sme získali prechodovú charakteristiku, z ktorej po jej analytickom vyjadrení a následnom zderivovaní určíme dobu nábehu a dobu prieťahu.



Obr. 5: Priebeh plnenia procesnej nádoby



Obr. 6: Grafické znázornenie derivácie a polynóm

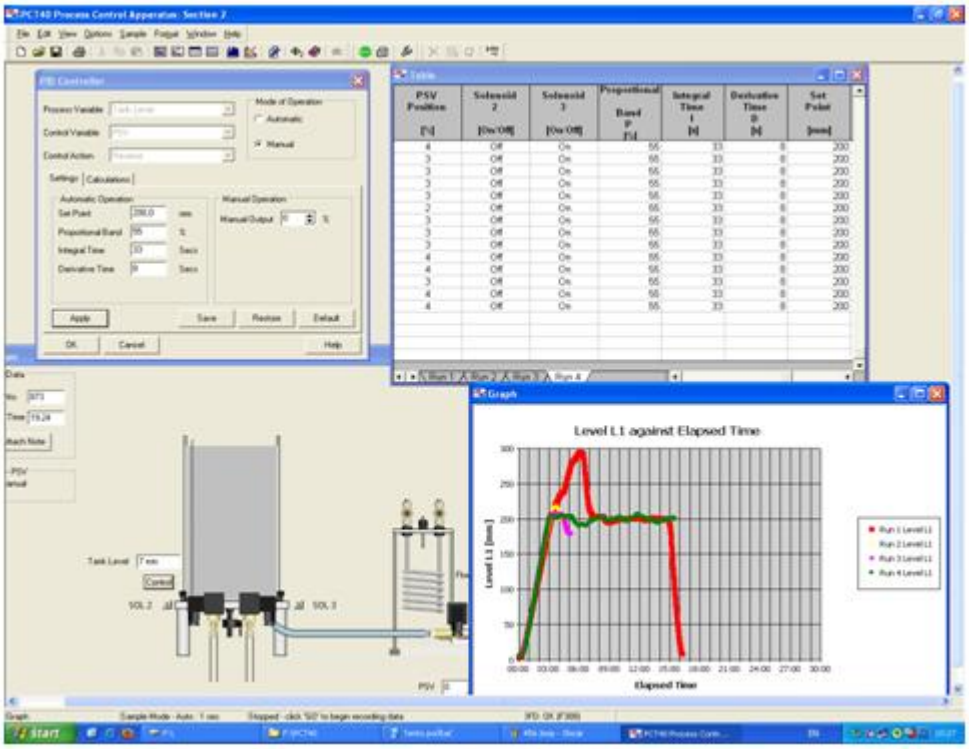
Optimálne parametre pre regulátor nastavíme podľa vzťahov využívajúcich dobu prieťahu T_u, dobu nábehu T_n a zosilnenie sústavy K_S, súhrnne uvedených v tabuľke 1. V tabuľke 2 sú uvedené vypočítané parametre PID regulátora.

Tab. 2 Parametre PID regulátora

T_u	17	K	55
T_n	580	T_I	34
		T_D	8

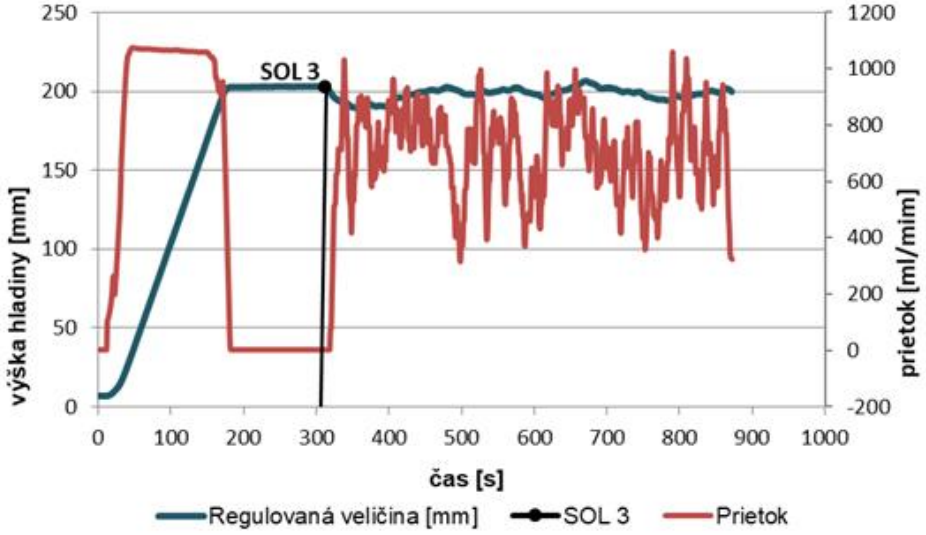
Na základe týchto výpočtov môžeme začať meranie spojitej regulácie výšky hladiny s PID regulátorom a proporcionálnym ventilom.

V úvode, kedy sme nastavovali požadovanú výšku hladiny (200 mm) sa teraz môžeme opätovne vrátiť na okno programu „*PID Controller*“ a nastaviť konštanty regulátora podľa vypočítaných hodnôt, ktoré sú uvedené v tabuľke 2. Tlačidlom „*Apply*“ uchovávame a potvrdíme zvolené nastavenia regulátora a následne zvolíme voľbu „*Automatic*“, keďže sa jedná o automatické regulovanie výšky hladiny. Po tejto voľbe sa proporcionálny solenoidový ventil PSV automaticky otvorí. Toto meranie sme začali klasicky s nulovou počiatočnou hodnotou. Veľká procesná nádoba sa plnila vodou až do požadovanej výšky. Nastavený regulátor udržiaval hladinu vody v nádobe v pomerne stabilizovanej polohe.



Obr. 7: Regulácia výšky hladiny v programe Armfield

Keď sa hladina vody v nádobe stabilizovala vniesli sme do merania poruchu v podobe otvorenia ventilu SOL 3 v čase 312 s. Hladina vody v nádobe začala mierne klesať. Následne nato sa prietok zvýšil a po krátkej dobe ustálil na približne 800 [ml/min]. Pri takto ustálenom prietoku a nastavených parametroch regulátora sa hladina vody v nádobe dokázala udržať na požadovanej hodnote. Nastavenie parametrov regulátora nebolo najvhodnejšie pre pomerne významné výkyvy okolo požadovanej výšky hladiny (viď obr. 8).



Obr. 8: Regulácia výšky hladiny s PID regulátorom

5 ZÁVER

V príspevku je popísaný návod pre reguláciu výšky hladiny s využitím multifunkčnej stanice Armfield PCT40. Príspevok poskytuje stručnú funkčnú charakteristiku multifunkčnej stanice, programu na jej ovládanie a tiež návod metódy riadenia výšky hladiny v zásobníku na kvapalinu pomocou Ziegler-Nicholsovej metódy, ktorá je určená pre nastavenie parametrov PI a PID regulátorov. Nastavenia parametrov regulátora vo všeobecnosti pôsobili na začiatok regulačného priebehu, čiže v čase kedy bola dosiahnutá požadovaná veličina. Každá zmena parametrov regulácie prináša určitú zmenu, či už väčšiu alebo menšiu a pôsobí tak na celkovú kvalitu regulácie. Za najviac vhodnú reguláciu sa bude považovať tá, kde je miera kmitavosti regulovanej veličiny čo najmenšia. V našom prípade by bolo vhodné zvýšiť hodnoty zložiek PID regulátora aby miera kmitavosti žiadanej veličiny bola aj po vnesení poruchy do systému menšia.

Poďakovanie

Táto práca bola čiastočne podporovaná grantmi zo Slovenskej Grantovej Agentúry pre Vedu APVV-14-0892, VEGA 1/0529/15 a VEGA 1/0273/17.

Použitá literatúra

1. KUREKOVÁ, Eva ., GABKO, Peter,. HALAJ, Martin: Technické meranie: Učebné texty z projektu Metromedia-Online. Bratislava: Grafické štúdio, 2005. ISBN 80-89112-04-8
2. CHUDÝ, Vladimír., PALENČÁR, Rudolf., KUREKOVÁ, Eva: Meranie technických veličín. Vydavateľstvo STU 1999. ISBN 80-227-1275-2.
3. DORČÁK, Ľubomír – TERPÁK, Ján – DORČÁKOVÁ, Františka: TEÓRIA AUTOMATICKÉHO RIADENIA: Spojité lineárne systémy. Košice, 2006. ISBN 80-8073-025-3
4. PALENČÁR, R., KUREKOVÁ, E., VDOLEČEK, F., HALAJ, M.: Systém riadenia merania. Bratislava: Grafické štúdio Ing. Peter Juriga 2001. ISBN 80-968449-7-0
5. "Level Measurement." 1995. Instrument Engineer's Handbook: Process Measure ments and Analysis, B.E. Liptak, Ed., 3rd Ed., Vol. 2. Radnor, PA, Chilton Book Co.:269-397.

6. Multifunction Process Control Teaching System. Katalog a uživatelská příručka firmy Armfield Limited, 2004. Dostupné na: < http://www.armfield.co.uk/>
7. NAGY, Z., ABDULWAHED, M.: Process Control Virtual Laboratory Manual, Laboratory manual

Kontaktné údaje

Ing. Diana Ráškayová
Technická univerzita v Košiciach
Fakulta baníctva, ekológie, riadenia a geotechnológií
Ústav riadenia a informatizácie výrobných procesov
Boženy Němcovej 3, 040 01 Košice
Tel: 055/6025193
email: diana.raskayova@tuke.sk

COMPARISON OF TWO APPROACHES TO FPGA BASED SINUSOIDAL PWM GENERATORS FOR ELECTRIC POWER FREQUENCY CONVERTERS

Martin Košťál, Tomáš Košťál

Abstract

One of the key parts of the frequency converter that can influence its efficiency and other properties is the PWM generator. Sinusoidal PWM (SPWM) generators are widely used solution of their realization especially if a field programmable gate array (FPGA) is used instead of more traditional microcontrollers or digital signal processors (DSP). This paper deals with a comparison between two different attitudes to an SPWM modulator realization in FPGA – a static and a reconfigurable. It describes the SPWM principles and crucial problems and then present two solutions. Finally the selected solutions are compared based on total harmonic distortion (THD) and usage of FPGA resources.

Key words: *frequency converter, FPGA, sinusoidal PWM*

1 INTRODUCTION

In the recent years topics such as renewable energy, electromobility or solar power became major research topics not only for research institutions but also for business corporations. In these fields it is necessary to convert electrical power from DC to AC in order to retain compatibility with the power grid and save overall cost. For DC to AC conversion often inverters are used, since they offer higher noise immunity and less susceptibility to voltage and temperature variations than analogue alternatives. The basic circuit topology is shown in Fig. **1**

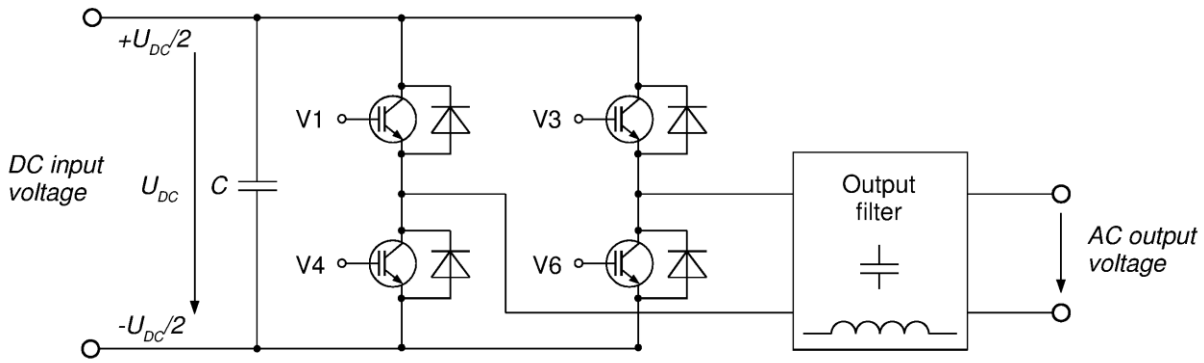


Fig. 1 Principal diagram of a single phase voltage source inverter

The crucial component of any power inverter is the control unit, which generates control signals for power switches to achieve best output even under load. Two major techniques have been used to drive the control signals: Spatial Vector PWM (SVPWM) and Sinusoidal PWM (SPWM). In this paper two SPWM generators are discussed.

1.1 Sinusoidal PWM

This method uses reference sinus function as a model of a desired output and a triangle function as a carrier function. The output PWM signal is given by equation (1).

$$b_{pwm}(t) = \mathrm{sgn}[r(t) - c(t)] \quad (1)$$

where b_{pwm} is the output PWM signal, r is the reference function and c is the carrier function. In ideal case the PWM output of a low pass filter would be the reference sinus function, but for real case scenario there are parasitic phenomena to deal with.

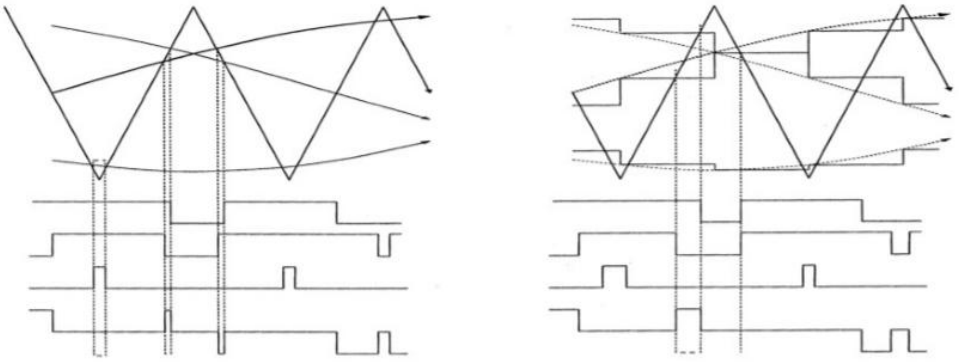


Fig. 2 Left: Natural sampling, Right: Regular sampling with quantization

In theory natural sampling would achieve the best results in SPWM generation, for digital control circuit it is impossible to achieve natural sampling, so regular sampling has to be used.

Sampling can be done at top-peaks, nadirs or both peaks of the carrier. Regular sampling suffers from discrete time domain and quantization effects, which introduces a delay to the output PWM signal. To reduce the delay effect as technique called phase advancing is used. The reference sinus waveform is shifted in phase so that the sample mean of the sampled function is aligned with the original reference sinus function, thus reducing the deviation of generated waveform caused by sampling [8], as shown in Fig. **3**.

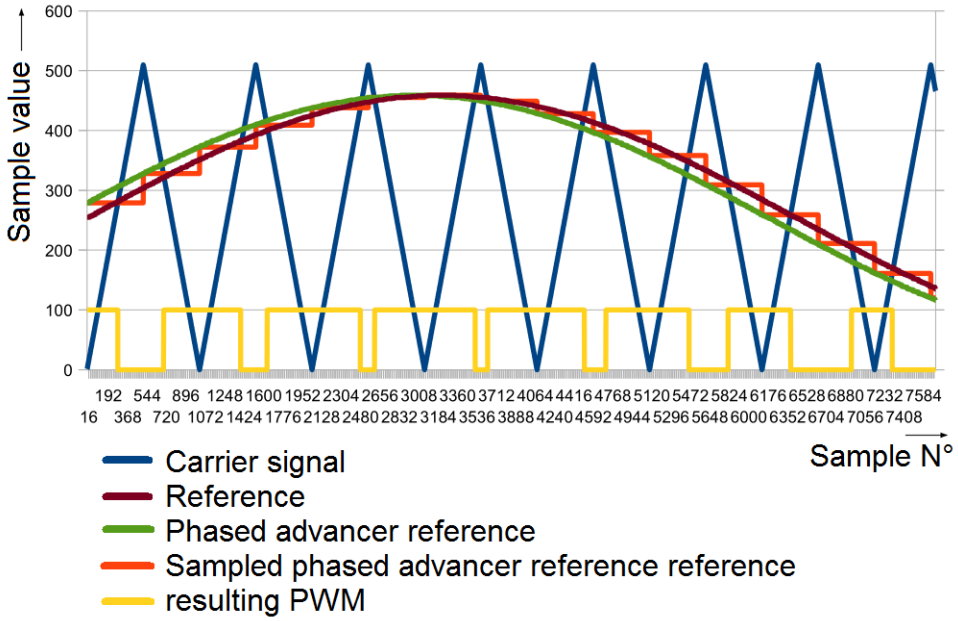


Fig. 3 Phase advancing

To compare SPWM generators the Total Harmonic Distortion (THD) is often used. THD comparison assumes that every periodic function can be described by Fourier series expansion thus THD is defined as

$$THD(\%)=\left(\frac{\sqrt{\sum_{h\neq 1} V_h^2}}{V_1}\right)\cdot 100\,\% \tag{2}$$

where V_h n-th harmonic of the SPWM signal. In best case scenario we want to achieve the output without any higher harmonics.

To implement SPWM generators Digital Signal Processors (DSPs) or Field Programmable Gate Arrays (FPGAs) are used. The main advantage of DPS is simplicity of the design but the trade-off is low switching speed below 10 kHz. For higher switching speed the FPGA implementation is favourable. [2]

2 DESCRIPTION OF TWO COMMON ARCHITECTURES OF SPWM GENERATORS

2.1 FPGA-Based SPWM Generator for High Switching Frequency for single phase inverters

In [1] the SPWM Generator design consisting of five subsystems is presented. These are Clock Generator, Modulation Index, Sine-Carrier, Adjustable Amplitude and Comparison subsystems. It uses 8-bit fixed-point arithmetic to reduce complexity. Fig. **4** shows the architecture of the proposed design.

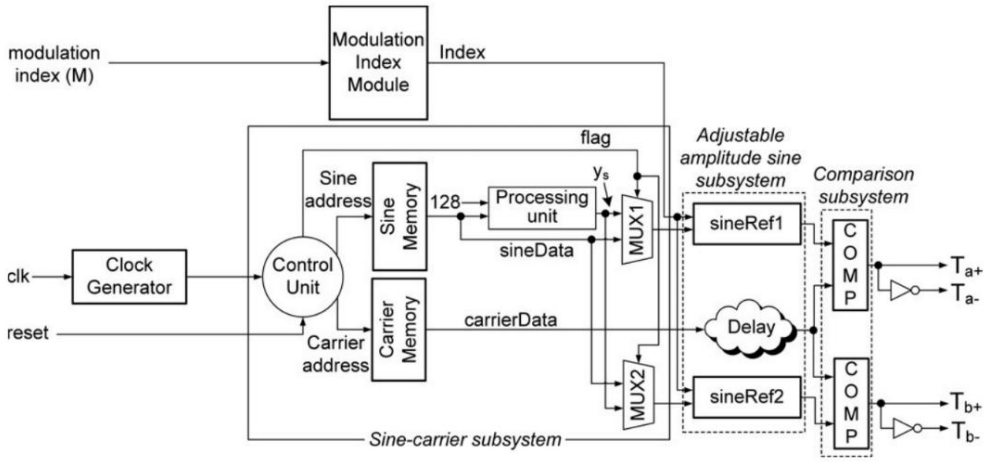


Fig. 4 Architecture diagram of the SPWM generator [1]

The Clock Generator is a clock multiplier/divider, user can change the internal clock by setting the ratio of multiply and divide coefficients. Its architecture is based on two finite state machines.

The Modulation Index subsystem transforms a floating point value of the modulation index *M* to a fixed point value. The transformation is defined by equation (3).

$$y_M = M\left(2^{n-1}-1\right)+2^{n-1} \tag{3}$$

where y_M the transformed value of *M*, *n* is word length of the architecture, thus *n* influences the resolution of *M*. The resolution for 8-bit architecture is [0; 255]. *M* is the floating point value of the modulation index from interval [0;1].

The Sine-Carrier is implemented with two BRAMs which operate as look-up tables (LUT), finite state machine (FSM) and multiplexers. One LUT contains the samples of reference sinus function and the second LUT stores samples of the carrier triangle function. In order to save memory only one quarter of period is saved for the sinus function, the rest of the period is recalculated from the first quarter period. The whole period is saved for the carrier triangle function. This subsystem generates three signals for further processing: sine address, carrier address and flag. Sine and carrier addresses indicate which sample of the function to use for computation, flag signal indicates that the read of sine function sample is from the second half of the period, thus the value must be treated as negative. The equation expresses computation of y_s as shown in Fig. **4** done by MUX1.

$$y_s = x - \left(\left(x - 2^{n-1} \right) \cdot 2 \right) \tag{4}$$

where x is the value of sinus function stored in LUT, n is word length of the architecture.

The multiplexer MUX2 is used for generation of a second reference sinus function with phase difference of 180° to the original reference.

The Adjustable amplitude is achieved by following computation

$$y_a = \frac{\left(y_s - 2^{n-1} \right) \cdot \left(y_M - 2^{n-1} \right)}{2^{n-1} - 1} + 2^{n-1} \tag{5}$$

where y_s is the constant amplitude reference sinus function, y_M is the fixed point modulation index also referred as *Index* in Fig. 4.

The Comparison subsystem creates the output driving signals T_{a+} and T_{b+} for the power switches by comparing the reference sinus function y_a to the carrier triangle function as explained in Chapter 1.1. The complementary signals T_{a-} and T_{b-} for valves V4 and V6, are generated by inverting the original output signals T_{a+} and T_{b+} for valves V1 and V3.

The final design has been verified by simulations and experiment on XILINX XUPV5-LX110T development board featuring Virtex-5FPGA.

2.2 Re-configurable PWM Controller for Three-Phase Inverters

Dynamic partial reconfiguration can be achieved by two methods, one is difference based flow and second is modular based flow. The low level changes in configuration of flip-flops, gates or LUTs is difference based flow. Modular based flow adopts division of the design into multiple modules, so that every module has its own bitstream and reconfiguration happens on the module level.

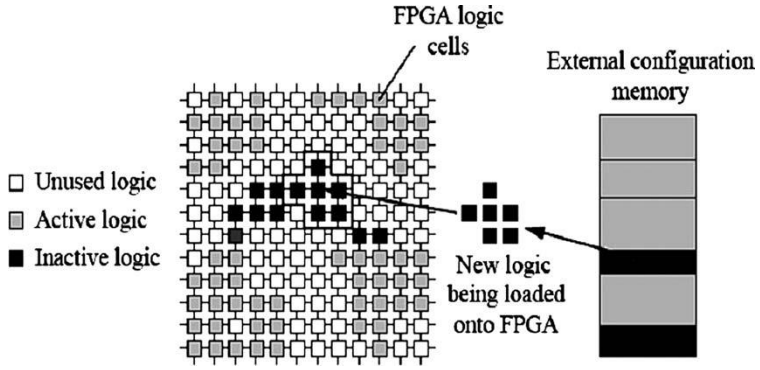


Fig. 5 Dynamic reconfiguration of FPGA [3]

This design uses modular based flow and the reconfiguration is handled by soft parallel configuration access port (PCAP), static part of the design is done by bus macros. Summary of the dynamic partial reconfiguration design flow is shown in Fig. **5**. and more detail is covered in [3].

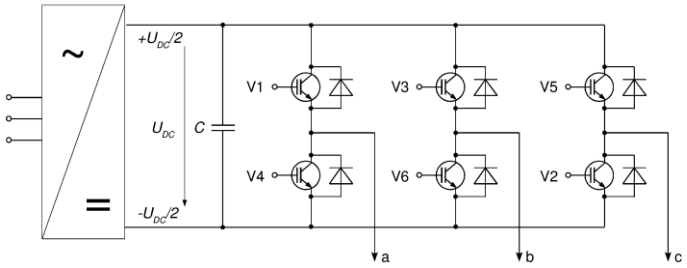


Fig. 6 Three phase voltage source frequency converter

Reference sinus function for this three phase design is achieved by generating three functions with 180° phase shift. Six control signals are generated for three phase inverter as shown in Fig. **7**.

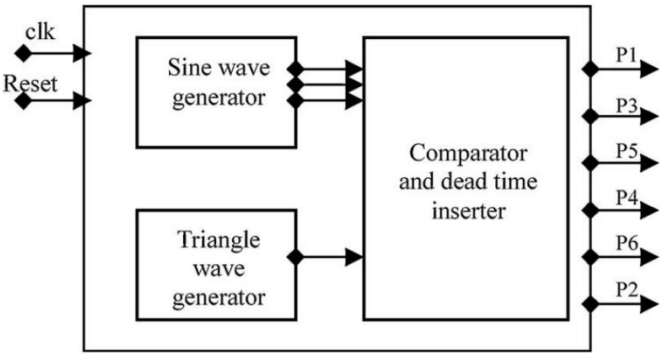


Fig. 7 SPWM implementation [3]

Reconfiguration capabilities are the main benefit of this proposal and many timing constraints have to be considered. The design is implemented in Xilinx Spartan 6 FPGA.

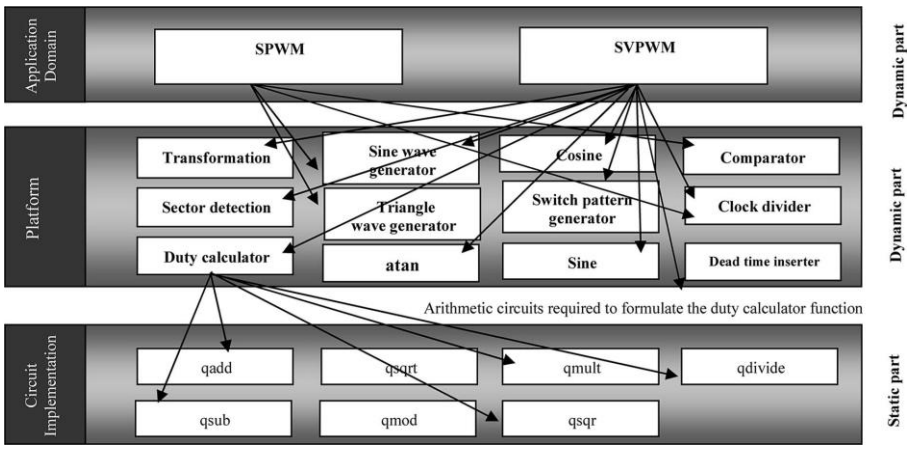


Fig. 8 Architecture of reconfigurable PWM controller [3]

3 EXPERIMENTAL RESULTS

Both approaches are compared based on THD criteria (see chapter 1.1). The SPWM generator for high switching frequency is compared to other SPWM generator architectures, nadir, peak, peak/nadir and under-sampling [4][5][6][7].

Fig. **9** presents a THD overview of the SPWM generator for high switching frequency for single phase inverters described in chapter 2.1. Fig. **10** shows THD of re-configurable PWM controller for three-phase inverters described in chapter 2.2.

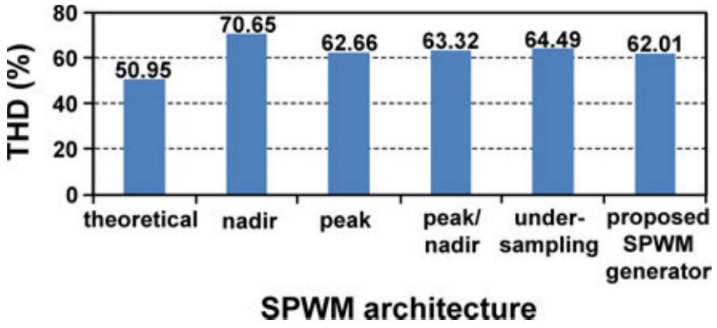


Fig. 9 Experimentally obtained THD for carrier frequency of 1 kHz [1]

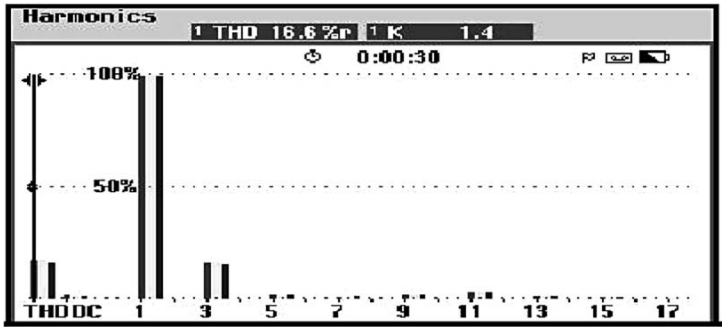


Fig. 10 Voltage THD in SPWM, reference frequency 30Hz, sampling frequency 10.42 kHz [3]

Following tables present resource occupation of the two solutions. Tab. for the SPWM generator for high switching frequency for single phase inverters described in chapter 2.1 and Tab. for the re-configurable PWM controller for three-phase inverters described in chapter 2.2.

f_c / f_s	1kHz / 4MHz	100kHz / 4MHz	500kHz / 4MHz	1MHz / 4MHz	100kHz / 16MHz	500kHz / 16MHz	1MHz / 16MHz	100kHz / 64MHz	500kHz / 64MHz	1MHz / 64MHz
DSPs	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 / 64 (9%)	6 /64 (9%)
Slice Registers	3447 / 69120 (4%)	3441 / 69120 (4%)	3438 / 69120 (4%)	3437 / 69120 (4%)	3445 / 69120 (4%)	3442 / 69120 (4%)	3441 / 69120 (4%)	3454 / 69120 (4%)	3451 / 69120 (4%)	3450 / 69120 (4%)
Slice LUTs	2860 / 69120 (4%)	2843 / 69120 (4%)	2838 / 69120 (4%)	2840 / 69120 (4%)	2852 / 69120 (4%)	2846 / 69120 (4%)	2846 / 69120 (4%)	2901 / 69120 (4%)	2893 / 69120 (4%)	2893 / 69120 (4%)
BRAMs	6 / 148 (4%)	6 / 148 (4%)	6 / 148 (4%)	6 / 148 (4%)	21 / 148 (14%)	21 / 148 (14%)	21 / 148 (14%)	79 / 148 (52%)	79 / 148 (52%)	79 / 148 (52%)
max. clock frequency	158MHz	155MHz	144MHz	149MHz	126MHz	138MHz	131MHz	96MHz	97MHz	99MHz

Tab. 1 FPGA resources used for various settings of carrier and sampling frequency [1]

Logic Utilization	Used	Available	Utilization
No. of Slice Flip Flops	341	7,168	4%
No.of 4 input LUTs	1,102	7,168	15%
No.of occupied Slices	737	3,584	20%
No. of Slices containing related logic	737	737	100%
No.of bonded IOBs	13	141	9%
No.of MULT18X18s	1	16	6%
Total equ. gate count	15,587		

Tab. 2 FPGA resources used for reconfigurable SPWM controller with 8 bit word length [3]

Deviation of THD obtained for SPWM generator for high switching frequency is 11.6%. The measured THD is 16.6% for re-configurable SPWM controller at 30Hz reference and 10.42 kHz sampling frequency. The THD is decreased for higher frequencies. Reconfiguration time is 1.58544 ms. Both designs runs at 50 MHz clock.

4 CONCLUSION

The SPWM generators are fundamental parts of inverters, which are widely used for DC to AC power conversion and motor drive.

The main advantage of SPWM is its simplicity and low resource utilization, thus it is widely used in larger designs such as in [3] as a supplement of SVPWM. When used with high sampling frequency the THD can be lowered significantly.

Disadvantage of SPWM generators is the absence of any feedback, so that the output cannot be compensated dynamically for various loads. Possibilities for torque control of motor drive are limited to changing only output amplitude, SVPWM is more suitable for motor drive applications but evaluation of SVPWM is beyond the scope of this paper.

Design proposed in [1] proves that increasing the sampling frequency can help decrease THD by over 8% compared to traditional designs. The higher sampling frequency was achieved by utilization of pipelining and parallel processing.

Design proposed in [3] presents a novel design of dynamically re-configurable controller. The obtained results shows, that such implementation can benefit from using the most suitable algorithm of PWM generation for different application, but the performance of the SPWM implementation is not exceptional.

The first architecture could be easily implemented as ASIC, the second utilizes the re-configurable nature of FPGA therefore the application possibilities vary.

Acknowledgement

Research described in the paper was supported by the Grant Agency of the Czech Technical University in Prague, grant No. SGS17/089/OHK3/1T/13.

Sources

1. M. Lakka, E. Koutroulis and A. Dollas, "Development of an FPGA-Based SPWM Generator for High Switching Frequency DC/AC Inverters," in IEEE Transactions on Power Electronics, vol. 29, no. 1, pp. 356-365, Jan. 2014. doi: 10.1109/TPEL.2013.2253216

2. M. P. Aguirre, L. Calvino and M. I. Valla, "Multilevel Current-Source Inverter With FPGA Control," in IEEE Transactions on Industrial Electronics, vol. 60, no. 1, pp. 3-10, Jan. 2013. doi: 10.1109/TIE.2012.2185014
3. R. K. Pongiannan, S. Paramasivam and N. Yadaiah, "Dynamically Reconfigurable PWM Controller for Three-Phase Voltage-Source Inverters," in IEEE Transactions on Power Electronics, vol. 26, no. 6, pp. 1790-1799, June 2011. doi: 10.1109/TPEL.2010.2066577
4. S. R. Bowes and D. Holliday, "Optimal regular-sampled PWM inverter control techniques," IEEE Trans. Ind. Electron., vol. 54, no. 3, pp. 1547–1559, Jun. 2007
5. M. S. N. Romli, Z. Idris, A. Saparon, and M. K. Hamzah, "An area-efficient sinusoidal pulse width modulation (SPWM) technique for single phase matrix converter (SPMC)," in Proc. IEEE 3rd Conf. Ind. Electron. Appl., Jun. 2008, pp. 1163–1168.
6. R. K. Pongiannan, P. Selvabharathi, and N. Yadaiah, "FPGA based three phase sinusoidal PWM VVVF controller," in Proc. 1st Int. Conf. Electr. Energy Syst., 2011, pp. 34–39.
7. S. R. Bowes and Y. S. Lai, "Investigation into optimising high switching frequency regular sampled PWM control for drives and static power con- verters," IEE-Proc. Electric Power Appl., vol. 143, no. 4, pp. 281–293, Jul. 1996.
8. KOŠŤÁL, T. Realization of modulator for three-level inverter with FPGA and Microblaze processor system. In: POSTER 2014 - 18th International Student Conference on Electrical Engineering. 18th International Student Conference on Electrical Engineering. Praha, 15.05.2014. Prague: Czech Technical University. 2014, s. 1-6. ISBN 978-80-01-05499-4.

Contact

Ing. Tomáš Košťál
České vysoké učení technické v Praze, Fakulta elektrotechnická
Technická 2, 166 27 Praha 6
Tel: 224 352 154
email: kostatom@fel.cvut.cz

THEMATIC DOMAIN | IX.

INOVACE, TECHNOLOGIE

INNOVATION, TECHNOLOGY

NUMBER OF PAPERS: 6



SYTÉMOVÝ NÁHĽAD DO GLOBÁLNEJ ÚSPEŠNOSTI INOVAČNÉHO MANAŽMENTU TECHNOLÓGIÍ

SYSTEMIC INSIGHT IN GLOBAL SUCCESS OF INNOVATIVE MANAGEMENT OF TECHNOLOGY

Marek Jemala

Abstrakt

Na základe výskumu bolo dokázané, že väčšie firmy majú snahu inovovať viac, pokiaľ ide o potrebu udržať a zväčšiť si svoj trhový podiel. Väčší trhový podiel znamená aj väčšiu šancu na úspešnosť technologických inovácií. Väčšia trhová úspešnosť prináša často lepšie goodwill a vyššiu hodnotu akcií. Vyššia hodnota akcií môže znamenať aj viac investícií pre ďalšie inovácie atď. Táto výskumná štúdia je súčasťou nášho dlhodobého výskumu v oblasti technologického manažmentu/inovácií a má za hlavný cieľ analyticky porovnať inovačnú úspešnosť manažmentu technológií z globálneho hľadiska, najmä pomocou patentovej analýzy databázy WIPO a štatistickej analýzy súvisiacich ekonomických indikátorov. Štúdia bola realizovaná v rokoch 2016-2017 a časový rozsah analyzovaných údajov je 2004-2015.[1] Výsledky tejto analýzy potvrdzujú tvrdenia, že technologické inovácie a patenty sú doménou vyspelých ekonomických krajín sveta, pričom menej a nízko ekonomicky rozvinuté ekonomiky sa vývojovo zatiaľ nepribližujú týmto vyspelým ekonomikám.

Kľúčové slová: *technologické inovácie a patenty, technologický manažment, manažment inovácií*

Abstract

Several research studies have shown that larger companies try to innovate more in terms of their need to maintain and increase their market share. A larger market share means even a greater chance of technological innovation success. A better market success often yields better goodwill and higher stock values. A higher value of shares may also mean more investment for further innovation, etc. This research study is part of our long-term research in the field of technology management/innovation and its main goal is to analytically compare the innovative success of technology management results globally, in particular, through the WIPO technology patent analysis and statistical analysis of related economic indicators. The study was conducted in 2016-2017 and the time range of the analyzed data is 2004-2015. The results of this analysis confirm the claims that technological innovations and patents are the domain of developed economies in the world, while less developed/emerging economies are not still approaching these developed economies.

Key words: *technology innovation and patents, technology management, innovation management*

Úvod

Každá firmy by mala komplexnejšie sledovať všetky vstupy i výstupy, ktoré súvisia s prípravou výroby, pretože tie výrazne ovplyvňujú efektívnosť výroby. Je nesprávne kalkulovať len ekonomickú efektívnosť prípravy výroby, pretože tieto výsledky môžu mať nedostatočnú vypovedaciu hodnotu. Pracovníci manažmentu prípravy výroby a

[1] Novšie patentové údaje v čase nášho výskumu neboli k dispozícii.

inovačného/znalostného manažmentu by mali spolupracovať pri návrhu novej technológie, pokiaľ ide o získavanie a tvorbu nových znalostí, distribúciu a transformáciu individuálnych znalostí napr. na tzv. organizačné znalosti, transformáciu znalostí na invencie a inovácie, napr. prostredníctvom spolupráce rôznych expertov pri príprave výroby a primerane využívať znalosti prostredníctvom patentovania a licencovania technologických inovácií. Firma však často musí začať s ochranou DV už v priebehu výskumu a vývoja, často pokiaľ vieme napríklad v rámci CAD/CAE/CAPP systémom už vizualizovať danú technológiu (tzv. front-end of innovation). Ak firma potrebuje chrániť technický nápad, alebo funkciu týkajúcu sa technologickej aplikácie, patentová ochrana je potenciálnou možnosťou. Patent je však často tou najdrahšou možnosťou. V závislosti od platných vnútroštátnych právnych predpisov môže byť aj softvér, ktorý spúšťa technologickú aplikáciu, chránený patentmi, ak má určité technické vlastnosti. *Technológie, ktoré chce firma patentovať, by mali spĺňať minimálne nasledovné parametre*: inovatívnosť (novosť, nepoznanosť, účelnosť, efektívnosť, opodstatnenosť), priemyselná aplikovateľnosť (priemyselná užitočnosť, ale aj možnosť ďalšieho patentovania v budúcnosti), jasnosť a komplexnosť opisu (pokiaľ ide o charakteristiku, kopírovateľnosť a možnú ochranu technológie atď.)[2] (Tidd – Bessant, 2009; WIPO, 2017a).

Kvalita technologických patentov môže byť vyjadrená napríklad prostredníctvom citácií v neskorších patentoch. Približne polovica patentov je citovaných 2-3 krát, ale asi len 1% patentov je citovaných 24 a viac krát. Medzi ostatné indikátory úspešnosti technologickej inovácie môžu patriť *súčasný index vplyvu* (Current impact index), *technologická sila* (Technology strength) v portfóliu patentov, *životný cyklus patentu* (Technology cycle time), *vedecké prepojenie* (Science linkage), pokiaľ ide o počet vedeckých článkov k patentu atď. (Tidd – Bessant, 2009) Potom napr. firmy, ktoré majú vyšší súčasný index vplyvu a vedecké prepojenie technologických patentov, majú často aj väčší trhový podiel a návratnosť investícií. Otázka trhových výsledkov však nie je len otázkou kvality technologickej inovácie, ale manažment prípravy výroby musí v tejto oblasti veľmi úzko spolupracovať aj s útvarom marketingu, najmä pokiaľ ide o trhový prieskum, ale aj s útvarom manažmentu ľudských zdrojov, pokiaľ ide o prípravu a motiváciu pracovníkov podieľajúcich sa na príprave výroby. Úspech technologickej inovácie závisí od celkového projektového manažmentu i kvality implementácie danej technológie.

V mnohých odvetviach až približne polovica technologických patentov nie je priemyselne využitých. Napríklad v Japonsku je často využitý len každý piaty patent. Preto patenty nie sú jediným ukazovateľom kvality technologickej inovácie. Firma sa môže rozhodnúť pre iné formy ochrany DV (ochranné známky, úžitkové vzory, copyrighty či priemyselné dizajny), alebo pre žiadnu (preventívnu) ochranu DV, ale vyčlení si prostriedky pre následné riešenie (súdnych) sporov. Je však potrebné jasne špecifikovať (v rámci *stratégie na ochranu DV*), kto má vo firme akú úlohu pri ochrane DV, aké sú pravidlá pri využívaní firemného DV, ako riešiť inovácie zamestnancov v rámci pracovného času, ale aj mimo pracovného času pri použitý firemných i vlastných prostriedkov, ktoré informácie poskytovať externým firmám atď.

Vlastné výrobky obsahujú množstvo technológií, ktoré sú v nehmotnej forme, napr. SW program. Priemyselná firma však často využíva technológie aj pre prípravu výroby, pre dizajn, inžiniering, plánovanie procesov (*CAD, CAE, CAPP*), v administratíve, napr. pre správu dát, dátovú výmenu, manažment životného cyklu výrobku, alebo elektronické

[2] V mnohých štátoch nie sú všeobecne patentovateľné vedecké teórie, estetické výtvory, matematické metódy, rastlinné alebo živočíšne odrody, objavy prírodných látok, komerčné metódy, metódy lekárskej starostlivosti (na rozdiel od medicínskych výrobkov) alebo počítačové programy. (WIPO, 2017b)

nákupy (*PDM, EDI, PLM, STEP, E-procurement*) atď. (Russel – Taylor, 2009) Množstvo technológií priemyselný podnik získava z externých zdrojov už napr. pri zmluvnom výskume, v rámci živých laboratórií, alebo pri outsourcingu. Tieto technológie však môžu vyžadovať tiež určité procesy prípravy, implementácie či údržby. Nie je možné patentovať každú technologickú inováciu, podnik však musí identifikovať hlavné zdroje, kapacity, znalosti i procesy, kde vzniká vlastná technologická/konkurenčná výhoda. Tieto oblasti je potrebné primerane riadiť a ochraňovať, a tak predchádzať úniku informácií, odkopírovaniu technologického know-how a možným súdnym sporom. V tomto procese musí mať významnú úlohu aj manažment výroby. V kontexte patentovania technológií priemyselného podniku má veľmi významnú úlohu i *primeraná podniková kultúra, sociálna i ekologická orientácia*. Tieto aspekty veľmi významne ovplyvňujú celkový prístup firmy k podnikaniu i inováciám.

1. Patentová analýza vývoja technologických inovácií podľa databázy WIPO

Medzinárodné technologické patentové ukazovatele sú do určitej miery aj ukazovateľmi ekonomickej vyspelosti regiónu, štátu, či spoločenstva a veľmi často sú porovnávané s takými ukazovateľmi, ako sú dosiahnutý HDP, výdavky na vedu a výskum, počet obyvateľov, miera nezamestnanosti, počet vedeckých publikácií, alebo množstvo nových výrobkov. Porovnanie patentových ukazovateľov s týmito komplementárnymi ukazovateľmi môže napomôcť lepšie identifikovať technologicko-ekonomickú výkonnosť daných subjektov. Táto komparácia však často vyžaduje aj *expertné posúdenie daných ukazovateľov pre objektívne výsledky*. Je však dlhodobo potvrdené, že patentové analýzy do veľkej miery korelujú s názormi expertov (na úrovni podniku, alebo konkrétnej inovácie) v danej problematike. Patentové analýzy sú však často len úvodným krokom technologickej analýzy a plánovania daného subjektu. Hlavnou výhodou patentových informácií je určitá štandardizovaná forma, súhrn najdôležitejších informácií o danej technológii a verejná dostupnosť daných údajov. Napríklad, čím viac je patent citovaný v neskôr vydaných patentoch, tým viac sa rozvíja a je významnejšou daná oblasť technológie (Breitzman – Mogee, 2002). Firmy, regióny i spoločenstvá, ktoré vlastnia najviac patentov, sú považované za technologicky viac rozvinuté. Atď.

Na základe tejto analýzy, *najviac technologických patentových prihlášok* patrí ázijským krajinám (54%), na druhom mieste je Severná Amerika (25%) a na treťom mieste sú krajiny Európy (16%). Tento vývoj je podobný, ako u patentových grantov. Len 5% technologických patentových prihlášok (rovnako ako grantov) pripadá na ostatné kontinenty. Pokiaľ ide napríklad o celkovú výšku podpory poskytovanej prostredníctvom daňových stimulov založených na výdavkoch na VaV, tam dominovali v poslednom období USA (11,3 mil. USD), Čína (9,4 mil. USD), Francúzsko (7,2 mil. USD), Japonsko (6,6 mil. USD) a Veľká Británia (3,5 mil. USD). Niektoré krajiny, ktoré poskytujú menšiu podporu, pokiaľ ide o priame financovanie V-V, v skutočnosti poskytujú značnú pomoc prostredníctvom daňového systému, to je prípad krajín, ako sú Austrália, Kanada a Holandsko. Celkovo Francúzsko, Ruská federácia a Kórea poskytli najvyššiu (kombinovanú) podporu VaV ako percento z HDP v roku 2014. (OECD, 2016)

Z globálneho hľadiska rýchlo rastúce krajiny so strednými príjmami dobiehajú rozdiely v príjmoch s krajinami s vysokými príjmami. Rast sa však musia udržať v dlhodobom horizonte a zisky musia byť udržateľné s cieľom trvalo zlepšovať životný štandard všetkých ľudí, pri rešpektovaní regionálnej ekológie a kultúry. Z hľadiska vyspelosti ekonomiky, najviac technologických patentových prihlášok pripadá na krajiny s vysokými príjmami (68%), nasledujú krajiny s vyššími-strednými príjmami (29%). Na krajiny s nižšími-

strednými a najnižšími príjmami pripadá len 3% technologických patentových prihlášok (rovnako ako grantov).[3] Podľa úspešnosti patentových prihlášok dominuje spomenutá Európa (47% úspešnosť), na druhom mieste je Severná Amerika (44%) a na treťom mieste je Ázia (42%). Priemerná celosvetová úspešnosť pri podávaní technologických patentov bola 44% ku koncu roka 2015, to znamená, že v Ázii bola táto úspešnosť pod priemerom. Z hľadiska vyspelosti ekonomiky, najviac úspešné sú nízko príjmové krajiny (71% úspešnosť), na druhom mieste sú vysoko príjmové krajiny (48%) a nasledujú krajiny s vyššími-strednými (35%) a nižšími-strednými príjmami (31%). (*Tab. 1*)

Z hľadiska celosvetového počtu patentových prihlášok, globálna *Finančná kríza*[4] najmä v rokoch 2007-2008 tu mala celosvetovo určitý vplyv na výsledky daného indikátora. Pričom v roku 2009 bolo podaných o 3,8% patentových prihlášok menej ako prechádzajúci rok. Pokles bol zaznamenaný najmä pri vysoko príjmových a nízko-stredne príjmových krajinách. Finančná kríza sa v roku 2008 rozšírila z krajín s vysokými príjmami do krajín s nízkymi príjmami. O rok neskôr sa stala najhoršou globálnou krízou za posledných 50 rokov a ovplyvnila trvalo udržateľný rozvoj na celom svete, aj pokiaľ ide o technologický pokrok. Priemerný ročný rast HDP na obyvateľa v krajinách s nízkymi a strednými príjmami (ktorý je stále rýchlejší ako v krajinách s vysokými príjmami), sa v priebehu rokov 2000–2009 spomalil z 5% na 3,8%. (World Bank, 2017b) Pričom najväčší pokles nezaznamenali vyspelé ekonomiky, ale krajiny s nízkymi a strednými príjmami. Najmä ázijské krajiny vrátane Kórey a Číny využili Krízu ako globálnu príležitosť preukázať svoje silné stránky v oblasti technologických inovácií. Využili a využívajú hlavne svoje silné štrukturálne stránky a fondy, ktoré im pomohli čeliť kríze. (OECD, 2012) Krízu tiež lepšie prekonali veľké inovatívne firmy s vysokou technologickou úrovňou, zatiaľ čo veľa menších firiem skrachovalo z dôvodu veľkého poklesu dopytu a straty zákazníkov.

[3] Nízko príjmové krajiny sú ekonomiky s menej ako 1,025,- USD HDP na obyvateľa (napr. Afganistan, Etiópia, Uganda); krajiny s výškou HDP na obyvateľa: 1,026 – 4,035,- USD sú považované za ekonomiky s nižšími-strednými príjmami (napr. Arménsko, Egypt, Ukraina), krajiny s výškou HDP na obyvateľa: 4,036 – 12,475,- USD sú považované za ekonomiky s vyššími-strednými príjmami (napr. Bielorusko, Bulharsko, Čína), a krajiny s výškou HDP na obyvateľa: 12,476,- a viac sú považované za vysoko príjmové ekonomiky (napr. Rakúsko, Dánsko, USA). (World Bank, 2017a)

[4] Známa aj ako Globálna ekonomická kríza. Pozri napr. Chossudovsky, M. – Marshall, A. G. (2010): *The Global Economic Crisis The Great Depression of the XXI Century*. Montreal: Global Research Publishers, 416 p., ISBN: 978-0973714739.

Tab. 1: Celkové technologické patentové prihlášky (priame a národné v rámci PCT)

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Suma**	**% patentových grantov**
Ázia	772100	854600	889700	932400	980000	944000	1028800	1178800	1321200	1497700	1607400	1786800	**13793500**	**0,42**
Európa	323000	326000	333100	339300	345900	323400	343300	334100	345800	345900	346100	360000	**4065900**	**0,47**
Severná Amerika	395100	430600	468000	496300	498400	493600	525700	538700	578100	606400	614300	626400	**6271600**	**0,44**
Vysoko príjmové krajiny	1303000	1369300	1402000	1432600	1427800	1347300	1398600	1415600	1476300	1509300	1522900	1544200	**17148900**	**0,48**
Krajiny s vyššími-strednými príjmami	227400	280200	327700	372200	429400	441100	522500	663500	798700	973000	1074700	1256900	**7367300**	**0,35**
Krajiny s nižšími-strednými príjmami	37100	46500	53800	61300	63400	57700	66700	69700	71900	72700	73300	77700	**751800**	**0,31**
Nízko príjmové krajiny	6700	6800	7500	8100	8600	9100	9200	9300	9800	9900	10000	10000	**105000**	**0,71**

Zdroj: Vlastné kalkulácie na základe údajov WIPO, 2017a

Počet technologických patentov (evidovaných v databáze WIPO) celosvetovo rastie. V období 2004-2015 vzrástol ročný počet technologických patentov o 97,7%. V rovnakom období vzrástol globálny HDP približne o 70% a globálna nezamestnanosť poklesla o 69% (World Bank, 2017c a 2017d). Takže je tu zrejmý určitý intenzívny rast patentovania technológií z hľadiska týchto základných indikátorov. Viac ako 1 milión technologických patentov je vydaných ročne od roku 2011. Práve rok 2011 bol však poznačený postupnosťou veľkých utečeneckých kríz. Konflikty v Líbyi, Somálsku, Sudáne atď. donútili viac ako 800 000 opustiť svoj domov, čo je najvyšší počet za viac ako 10 rokov. Viac ako 4 milióny ľudí utieklo z domova len kvôli nezmyselným konfliktom v Iraku a Sýrii. (UNHCR, 2012) Táto imigrácia ekonomicky zasiahla aj vyspelé ekonomické štáty, aj krajiny Severnej Ameriky, či EÚ. V kontexte tejto štúdie, pozitívne technologické inovácie celkovo môžu zmierňovať humanitárne dôsledky konfliktov a vojen, hlavne pokiaľ ide o lepšiu zdravotnícku

technológiu, možnú mobilnú komunikáciu, či využitie internetu pri sociálnej pomoci, vzdelávaní, informovaní o voľných pracovných miestach atď. Napríklad, to prinútilo tiež amerických štátnikov vyzvať spoločnosti v Silicon Valley, aby prišli s inovatívnejšími spôsobmi poskytovania humanitnej pomoci, pokiaľ ide o využitie technológií (Marr, 2015). Naopak mnohé ekonomické i sociálne krízy znamenajú pokles pozitívnych podnikateľských výsledkov, riešenie operatívnych problémov, odklon od stratégie firmy, nedostatok investícií, nedostatočný dopyt a tak aj pokles inovačných procesov.

Od roku 2004 bol najväčší nárast technologických patentových grantov zaznamenaný v Ázii (+175,8%), nasleduje Severná Amerika (+80,7%) a najmenší nárast bol evidovaný v krajinách Európy, len +3,4%. Len v rámci EÚ predstavuje priemysel okolo 80% európskeho vývozu. Približne 65% investícií do výskumu a vývoja (VaV) v súkromnom sektore je v rámci priemyselnej výroby. *Približne 79% európskych firiem, ktoré zaviedli aspoň jednu technologickú inováciu od roku 2011, zaznamenali do roku 2014 zvýšenie svojho obratu o viac ako 25%.* Európska komisia podporuje v rámci svojich výskumných politík a programov (ako sú stratégia Europe 2020, Horizon 2020 atď.) najmä tieto oblasti: nové technologické objavy, inovatívne technologické procesy, nové obchodné modely a netechnologické inovácie v oblasti služieb. (Innobarometer, 2016) Z hľadiska niektorých príčin európskeho technologického zaostávania, napr. rast produktivity práce v Európe je veľmi nerovnomerný, v niektorých krajinách (Nórsko a do určitej miery aj Nemecko) je na dobrej úrovni, vo Francúzsku a Veľkej Británii je na priemernej úrovni a nižší je v Taliansku a Španielsku. Celkovo je úroveň produktivity výrazne nižšia ako v USA. Pokiaľ ide o produktivitu na pracovníka, vo Francúzsko a Taliansku je o 25-30% nižšia ako v USA, z hľadiska produktivity za odpracovanú hodinu je Francúzsko o 12% na nižšej úrovni, Nemecko o 15%, a Španielsko má o 26% a Taliansko o 33% nižšiu úroveň tohto ukazovateľa. Pričom napr. Švajčiarsko, Veľká Británia a Švédsko sú na vrchole globálneho inovačného indexu. Mnohé ostatné európske ekonomiky však výrazne zaostávajú. (Geglobalresearch, 2014) Toto zaostávanie môže mať niekoľko ďalších príčin: nižšia schopnosť firiem prilákať zahraničný kapitál, hlavne pokiaľ ide o startupy, menšia spolupráca medzi krajinami, aj pokiaľ ide o vzťahy so zákazníkmi, dodávateľmi, univerzitami a vládou atď., následne slabšia vládna podpora inovácií a nižšia schopnosť prilákať aj udržať si talentovaných ľudí, hlavne pokiaľ ide o rozvíjajúce sa ekonomiky. Na týchto aspektoch aj technologických inovácií je potrebné zapracovať, pokiaľ ide o zlepšenie európskeho postavenia v oblasti inovácií.

Pokiaľ ide o vyspelosť ekonomiky, tak najväčší nárast technologických patentov bol evidovaný v krajinách s vyššími-strednými príjmami (+338,1%), na druhom mieste boli nízko príjmové krajiny (+95%), nasledovali krajiny s vysokými príjmami (+54,5%), a na poslednom mieste boli krajiny s nižšími-strednými príjmami (+6,74%). Pričom na krajiny s vysokými príjmami pripadá až okolo 64% globálneho HDP a približne len 16% obyvateľstva zeme. Na krajiny s vyššími-strednými príjmami pripadá približne 28% globálneho HDP a 35% obyvateľstva. Na krajiny s nižšími-strednými príjmami pripadá približne 7,5% globálneho HDP a 40% obyvateľstva. A na krajiny s najnižšími príjmami pripadá približne len 0,5% globálneho HDP a 9% obyvateľstva. Z hľadiska vyspelosti ekonomiky, najviac technologických patentov pripadá na krajiny s vysokými príjmami (75%), nasledujú krajiny s vyššími-strednými príjmami (23%). Na krajiny s nižšími strednými a najnižšími príjmami pripadá len 3% technologických patentov. To znamená, že na krajiny s vysokými a vyššími-strednými príjmami pripadá približne 98% technologických patentov, 92% globálneho HDP a 51% obyvateľstva. Na krajiny s nižšími-strednými príjmami a nízkymi príjmami pripadá len 2% technologických patentov, 8% globálneho HDP, ale 49% obyvateľstva. (World Bank, 2017e) Tento výsledok potvrdzuje tvrdenia, že

technologické inovácie a patenty sú doménou vyspelých ekonomických krajín sveta, pričom menej a nízko ekonomicky rozvinuté ekonomiky sa vývojovo nepribližujú týmto vyspelým ekonomikám. V rámci našej analýzy, najviac technologických patentov/grantov patrí ázijským krajinám (53%), na druhom mieste je Severná Amerika (25%), a na treťom mieste sú krajiny Európy (17%). Len 5% technologických patentov pripadá na ostatné kontinenty. Z hľadiska celosvetového počtu technologických patentov, spomenutá Finančná kríza v rokoch 2007-2008 nemala celosvetovo príliš veľký vplyv na výsledky tohto indikátora. Vo vysokopríjmových krajinách bol však zaznamenaný mierny pokles a naopak v najchudobnejších krajinách bol zaznamenaný normálny rast vydávania technologických patentov. (*Tab. 2*)

Tab. 2: Celkové technologické patentové granty (priame a národné v rámci PCT)

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**SUMA**
Svet	627900	633900	755400	777100	782300	815200	915700	1002600	1138600	1175400	1179800	1241100	**11045000**
Ázia	254000	288700	368600	415200	409500	424200	469600	551000	649100	656300	636700	700400	**5823300**
Európa	159700	150900	163100	149300	157800	164300	160800	153100	159200	161800	161900	165200	**1907100**
Severná Amerika	177400	159300	188700	175800	176500	186800	238700	245300	275000	301700	324400	320600	**2770200**
Vysoko príjmové krajiny	508100	509200	615000	615000	587300	589800	685600	734900	822400	869800	844700	785000	**8166800**
Krajiny s vyššími-strednými príjmami	98000	104500	116600	129700	161300	199500	203800	242700	292400	281300	308300	429300	**2567400**
Krajiny s nižšími-strednými príjmami	17800	16000	19000	27500	27800	19100	19300	18000	16500	16900	19300	19000	**236200**
Nízko príjmové krajiny	400	4200	4800	4900	5900	6800	7000	7000	7300	7400	7500	7800	**74600**

Zdroj: Vlastné kalkulácie na základe údajov WIPO, 2017a

Záver

Otázka efektívnosti technologických inovácií nie je len otázkou úspešného patentovania a využívania technológií, ale je aj otázkou *merania a hodnotenia komplexnejších vstupov a výstupov inovačných procesov podniku*. Aj z tohto dôvodu je výskumná činnosť niekedy koncentrovaná napr. vo vedecko-výskumných parkoch/technologických klastroch. Mnohé krajiny, ktoré vykonávajú pomerne málo technologicky orientovaných výskumných projektov, majú vysokú úroveň efektívnosti a aj lepšie prekonávajú určité krízy, napr. pri využití technologického transferu, spoločných podnikov, alebo technologických akvizícií. Sú tu však aj mnohé iné možnosti a nadväznosti. Napríklad podľa výskumu Johnatana Eatona (1999) boli v minulosti úrovne produktivity vo Francúzsku a Nemecku veľmi podobné, ale Nemecko robilo a stále robí približne dvakrát toľko technologického výskumu. Takéto výsledky naznačujú, že veľké množstvo krajín využíva výhody menej početných (viac radikálnych) technologických inovácií, ktoré často závisia nielen od výšky investícií, ale aj od kvality výskumnej a podpornej základne a určitých historických predpokladov. USA, Japonsko a Nemecko dominujú, pokiaľ ide o patentovanie v iných krajinách OECD. Väčšie a vyspelejšie krajiny sú tiež populárnejšie destinácie pre patentové prihlášky, pokiaľ je trh na ktorom hľadajú ochranu väčší. Vyššie náklady na patentovanie (poplatky za podanie žiadosti, náklady na preklady a poplatky za právne služby) zvyčajne zabraňujú patentovaniu, rovnako ako zdĺhavý proces hodnotenia a vydávania patentu (napr. patentovanie v Japonsku je pre cudzincov obzvlášť nákladné.). (Eaton a kol., 2016) Vynálezcovia si tiež pravdepodobne vyberú trhy pre svoje patenty v blízkych krajinách, pokiaľ sú úspešné. Napríklad opäť Japonsko je najväčším zahraničným patentovateľom v USA a Kanade. Atď. Problematiky globálnej technologickej úspešnosti je často dlhodobý systémový proces, ktorý môže začínať pri národnej strategickej vízii V-V, foresighte, podpore akademického výskumu a vzdelávania, pokračuje cez budovanie vhodných podmienok pre startapy, spinoffs, technologické centrá a parky. Vyžaduje často štátne záruky za bankové úvery, podporu zahraničných investícií, podporu medzinárodnej vedeckej spolupráce i adekvátneho financovania V-V atď.

Literatúra

1. BREITZMAN, A. F. – MOGEE, M. E. (2002): The many applications of patent analysis, *Journal of Information Science*, Vol. 28, No. 3, pp. 187–205, ISSN: 0165-5515.
2. CHOSSUDOVSKY, M. – MARSHALL, A. G. (2010): *The Global Economic Crisis The Great Depression of the XXI Century*. Montreal: Global Research Publishers, 416 p., ISBN: 978-0973714739.
3. EATON, J. (1999): Technology and the Global Economy, *NBER*, [on-line], <http://www.nber.org/reporter/summer99/eaton.html>, March 2017.
4. EATON, J. – KORTUM, S. – NEIMAN, B. – ROMALIS, J. (2016): Trade and the Global Recession, *American Economic Review*, Vol. 106, No. 11, pp. 3401–3438, ISSN: 0002-8282.
5. GEGLOBALRESEARCH (2014): The State of European Innovation, *Geglobalresearch*, [on-line], <http://www.geglobalresearch.com/media/State-of-European-Innovation-White-Paper-2014.pdf>, May 2017.
6. INNOBAROMETER (2016): Innobarometer 2016 – EU business innovation trends, *EU Open data portal*, [on-line], <http://data.europa.eu/euodp/en/data/dataset/S2064_433_ENG>, May 2017.
7. MARR, B. (2015): Big Data, Technology And The Middle East Refugee Crisis, *Fortune*, October 15, ISSN: 0015-8259.

8. OECD (2012): OECD Science, Technology and Industry Outlook 2012, *OECD*, [on-line], <https://www.oecd.org/sti/sti-outlook-2012-chapter-1-innovation-in-the-crisis-and-beyond.pdf>, May 2017.
9. OECD (2016): Measuring Tax Support for R&D and Innovation, *OECD*, [on-line], <http://www.oecd.org/sti/rd-tax-incentive-indicators.htm>, May 2017.
10. RUSSEL, R. S. – TAYLOR, B. W. (2009): *Operation management, Along the Supply Chain*. Chichester: John Wiley and Sons, Ltd., ISBN: 978-0-470-23379-5.
11. TIDD, J. – BESSANT, J. (2009): Managing innovation, Integrating Technological, Market and Organizational Change. Chichester: John Wiley and Sons, Ltd., 622 p., ISBN: 978-0-470-99810-6.
12. UNHCR (2012): A year of crises, *UNHCR*, [on-line], <http://www.unhcr.org/statistics/country/4fd6f87f9/unhcr-global-trends-2011.html>, May 2017.
13. WB (2017a): World Bank Country and Lending Groups, *World Bank*, [on-line], <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>, May 2017.
14. WB (2017b): World Bank Country and Lending Groups, *World Bank*, [on-line], <http://data.worldbank.org/products/wdi-maps>, May 2017.
15. WB (2017c): GDP growth (annual %), *World Bank*, [on-line], <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&start=2004>, May 2017.
16. WB (2017d): Unemployment, total (% of total labor force) (modeled ILO estimate), *World Bank*, [on-line], <http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS%20?end=2015&start=2004>, May 2017.
17. WB (2017e): World bank open data, *World Bank*, [on-line], <http://data.worldbank.org/>, May 2017.
18. WIPO (2017a):WDI 2017 Maps, *WIPO*, [on-line], <https://www3.wipo.int/ipstats/index.htm?tab=patent>, April 2017.
19. WIPO (2017b): Patents, *WIPO*, [on-line], <http://www.wipo.int/patents/en/faq_patents.html#accordion__collapse__09_a>, April 2017.

Kontakt

Doc. Ing. Marek Jemala, PhD.
Ústav priemyselného inžinierstva a manažmentu
Materiálovotechnologická fakulta so sídlom v Trnave
Slovenská technická univerzita
marek.jemala@stuba.sk

SYSTÉMOVÝ NÁHĽAD DO TECHNOLOGICKEJ PRÍPRAVY VÝROBY A INOVÁCIÍ PRIEMYSELNÝCH PODNIKOV

SYSTEMIC INSIGHT IN TECHNOLOGICAL PREPARATION OF PRODUCTION AND INNOVATION OF INDUSTRIAL ENTERPRISES

Marek Jemala, Alena Pauliková, Patrik Brigant

Abstrakt

Tento článok je súčasťou nášho dlhodobého výskumu v oblasti technologického a výrobného manažmentu priemyselných podnikov a má za hlavný cieľ metodicky zdôrazniť význam a meniace sa úlohy technologickej prípravy výroby[1] a technologických inovácií v podniku a parciálne analyticky porovnať inovačnú úspešnosť manažmentu technológií z globálneho hľadiska, najmä pomocou patentovej analýzy a štatistickej analýzy súvisiacich ekonomických indikátorov. Práca bola realizovaná v roku 2017 a časový rozsah analyzovaných údajov je 2004-2015.[2] Výsledky indikujú určitú ázijskú dominanciu aj v oblasti technologického manažmentu, nielen pokiaľ ide o počet technologických patentov, ale aj vzhľadom na dynamiku rastu, schopnosť prekonávať finančné krízy a inštitucionálnu podporu technologického výskumu.

Kľúčové slová: *technologická príprava výroby, technologické inovácie a patenty*

Abstract

This article is the part of our long-term research in the field of technology and production management of industrial enterprises. We aim to methodically highlight an important (changing) role of technological preparation of production, and technology innovations in an enterprise, to analyze the innovative success of technology management from a global perspective, and to highlight some related economic indicators. The work was carried in 2017 and the time range of the analyzed data is 2004-2015. The results indicate a certain Asian dominance in Technology management, not only in terms of the technology patents but also in terms of the growth dynamics, the ability to overcome financial crises and in the institutional support for technological research.

Key words: *technological preparation of production, technology innovation and patents*

Úvod

Výsledkom *technologickej prípravy výroby* (TPV) má byť taký technologický postup, ktorý znamená optimálnu a efektívnu výrobu, pokiaľ ide o nákladové hľadiská, kvalitu, bezpečnosť, ergonomickosť, ekologickosť, časové kritériá, náročnosť na obsluhu a opravy, logistickú náročnosť, zabezpečenie dopravno-manipulačných a súvisiacich manipulačno-obslužných procesov nevyhnutných pre realizáciu materiálových tokov vyskytujúcich sa v jednotlivých fázach výroby a pod. Technologické postupy, návodky, rozpisky súčiastok, dielenské rozpisky, montážne schémy, súpisy náradia, normy spotreby, projektové výkresy atď., to všetko môže tvoriť výsledok technologickej prípravy výroby. Komplexnejšie technologické výstupy obsahujú aj postupy pre obslužné, manipulačné, kontrolné a súvisiace

[1] Technologická príprava výroby (TPV) je zvyčajne súčasťou Manažmentu predvýrobných procesov, ale aj súčasťou Technologického manažmentu/inovácií v mnohých priemyselných podnikoch.
[2] Novšie patentové údaje v čase nášho výskumu neboli k dispozícii.

procesy. Najdôležitejším výstupov TPV sú však účelné a efektívne technologické inovácie. Súčasťou manažmentu TPV je skoordinovať tieto inovácie a súvisiace procesy do funkčného a efektívneho systému výroby. TPV však musí počítať aj s určitými odchýlkami, zmenami, či rizikami, ktoré súvisia s trhovým prostredím i technologickým pokrokom a primerane ich zapracovať do výrobných noriem a plánov. Mnohé technologické riešenia sú vysoko finančne náročné a preto zlé investície môžu znamenať značné finančné problémy pre firmu. Na vysoko dynamických a rýchlo sa rozvíjajúcich trhoch s technológiami, kde sú konkurenčné pozície často definované menej cenou a viac inovačnou stratégiou, systémové technologické inovácie sú často kľúčovou konkurenčnou výhodou. Pokiaľ však firmy nevlastnia technologické know-how, musia viac investovať do transferu technológií. Napríklad *Amazon* vykonáva svoj technologický výskum pod názvom "*Technology and Content*". Tento útvar sústreďuje technologické know-how firmy, investície i technologické náklady. Tieto náklady sa skladajú najmä z nákladov na výskum a vývoj, miezd a súvisiacich personálnych nákladov zamestnancov pracujúcich v technologickom výskume, pri implementácii, údržbe a prevádzke, pokiaľ ide o výrobky, služby i infraštruktúru firmy. (Dolata, 2017) Firmy v oblasti internetových služieb sú často závislé na množstve menších technologických firiem, ktoré zabezpečujú vybrané technologické služby pre efektívne fungovanie celého systému.

Pokiaľ ide o väčšie technologické investície, často je nielen potrebné navrhnúť dané technológie variantne a počítať aj s flexibilnými technologickými riešeniami, ale je potrebné zabezpečiť aj primeranú ochranu súvisiaceho technologického duševného vlastníctva. Ochrana duševného vlastníctva (DV) súvisiaceho s novou technológiou môže značne ovplyvniť efektívnosť zavádzaných inovácií. *Google, Amazon, Apple, Facebook a Microsoft* spoločne požiadali o 52 000 patentov v rokoch 2009-2016. Microsoft a Google podali najviac patentov: Spoločnosť Microsoft požiadala o viac ako 16 800 patentov, pričom spoločnosť Google (na 2. mieste) požiadala o viac ako 14 500 patentov. Firma Apple bola na 3. a Amazon na 4. mieste, s výrazným zaostávaním Facebooku. Napríklad jeden z najhodnotnejších technologických patentov v poslednej dobe je tzv. *One-click patent* (Amazon), mnohé firmy (vrátane Applu) platia značné finančné sumy za využívanie tejto technológie (Cbinsights, 2016). Bez patentovania tejto technológie by firma veľmi rýchlo stratila svoju konkurenčnú výhodu. Neplatí to však pre každú technológiu.

Pokiaľ ide o ochranu DV a efektívnosť technologických inovácií, je tu potrebná centrálna stratégia/úloha firmy, najmä vzhľadom na výrobnú technológiu priemyselnej firmy, alebo výrobkovú technológiu firmy v oblasti progresívnych technológií. V menej dynamickom prostredí, alebo v prostredí s nižšou konkurenciou, môžu firmy voliť nižšie technologické investície, ako aj slabšiu ochranu DV. Nemusí to byť však vždy pravidlom. Pre tento účel môže byť vo firme zavedený útvar na ochranu DV/transfer technológie, ale útvar znalostného manažmentu. Manažment výroby priemyselnej firmy však má tiež významnú funkciu pri ochrane DV, nakoľko spravuje kľúčové výrobno-organizačné know-how.

1. Nadväznosti technologickej prípravy výroby a patentovania technológií

Ukazovatele, ako sú: počet vedecko-výskumných pracovníkov, počet inžinierov pracujúcich v príprave výroby, výška investícií pre technologické inovácie, požadovaná návratnosť investícií, ziskovosť, zlepšenie rýchlosti a kvality výroby, počet technologických patentov, zlepšenie dobrého mena firmy, trhového podielu i hodnoty akcií atď. môžu charakterizovať úspešnosť procesov technologickej prípravy výroby (TPV) a technologických inovácií. Každá firmy by však mala komplexnejšie sledovať všetky vstupy i výstupy, ktoré súvisia s prípravou výroby, pretože tie výrazne ovplyvňujú celkovú efektívnosť výroby. Je nesprávne

kalkulovať len ekonomickú efektívnosť prípravy výroby, alebo len návratnosť investícií, pretože tieto výsledky môžu mať nedostatočnú vypovedaciu hodnotu pre podnik. Nová technológia môže znamenať primeraný zisk pre podnik, ale nová výroba môže aj príliš zaťažovať životné prostredie, vo výrobe môže byť vysoká úrazovosť a fluktuácia. Výroba nemusí byť primerane monitorovaná a optimalizovaná z hľadiska výkonu, nákladov i využitia času/priestoru a iných kapacít. Nová technológia nemusí mať rozvojový potenciál, nie je možné ju patentovať, na trhu existuje lepšia technológia atď.

Na základe výskumu bolo dokázané, že väčšie firmy majú snahu inovovať viac, pokiaľ ide o potrebu udržať a zväčšiť si svoj trhový podiel. Väčší trhový podiel znamená aj väčšiu šancu na úspešnosť technologických inovácií. Väčšia trhová úspešnosť prináša často lepšie goodwill[3] a vyššiu hodnotu akcií. Vyššia hodnota akcií môže znamenať aj viac investícií pre ďalšie inovácie atď. Goodwill firmy je značne ovplyvnené ekologickou i sociálnou orientáciou daného podniku. Čiže je tu potrebné sledovať komplexnejšie väzby inovačného i výrobného manažmentu. Najväčšie zhodnotenie svojich technologických investícií v podobe rastúcej hodnoty akcií majú dlhodobo firmy v oblasti progresívnych technológií, najmä polovodičov a celkovo výrobcovia IT. Napríklad firma *Micron Technology* len za prvý štvrťrok 2017 zhodnotila svoje akcie o 32,3%, čo znamenalo trhovú kapitalizáciu v hodnote 32 mld. USD. (Palmer, 2017) V mnohých priemyselných odvetviach môže byť takáto kapitalizácia nereálna, alebo otázkou minimálne niekoľkých rokov. Technologické inovácie však majú často väčšiu návratnosť, ako produktové inovácie, majú často aj väčšie nároky, pokiaľ ide o tzv. organizačné, personálne, či manažérske inovácie (tzv. reťazenie inovácií). Mnohé úspešné technologicky orientované firmy však môžu začať inovačne stagnovať pri stabilných dobrých ekonomických výsledkoch, čo je príklad niektorých nemeckých priemyselných podnikov, aj napriek rozvíjajúcim sa trendom Industry 4.0 (Eurostat, 2017).

Pracovníci manažmentu prípravy výroby a inovačného/znalostného manažmentu by mali spolupracovať pri návrhu novej technologickej stratégie i technológie, pokiaľ ide o získavanie a tvorbu nových znalostí, distribúciu a transformáciu individuálnych znalostí napr. na tzv. organizačné znalosti, transformáciu znalostí na invencie a inovácie. Táto kooperácia môže fungovať napr. prostredníctvom tímovej spolupráce rôznych expertov pri príprave výroby a prostredníctvom spoločného patentovania a licencovania technologických inovácií. Firma však často musí začať s ochranou DV už v priebehu výskumu a vývoja, pokiaľ vie, napríklad v rámci CAD/CAE/CAPP systému, už vizualizovať danú technológiu (tzv. front-end of innovation). Ide o tzv. prípravu trhu pre novú technologickú inováciu. Ak firma potrebuje chrániť technický nápad, alebo funkciu týkajúcu sa technologickej aplikácie, patentová ochrana je potenciálnou možnosťou. Patent je však často tou najdrahšou možnosťou. V závislosti od platných vnútroštátnych právnych predpisov môže byť už aj softvér, ktorý spúšťa technologickú aplikáciu, chránený patentmi, ak má určité technické vlastnosti. *Technológie, ktoré chce firma patentovať, by mali spĺňať minimálne nasledovné parametre*: inovatívnosť (novosť, nepoznanosť, účelnosť, efektívnosť, opodstatnenosť), priemyselná aplikovateľnosť (priemyselná užitočnosť, ale aj možnosť ďalšieho patentovania v budúcnosti), jasnosť a komplexnosť opisu (pokiaľ ide o charakteristiku, kopírovateľnosť a možnú ochranu technológie atď.)[4] (Tidd – Bessant, 2009; WIPO, 2017a).

Kvalita technologických patentov môže byť vyjadrená napríklad prostredníctvom citácií v neskorších patentoch. Približne polovica patentov je citovaných 2-3 krát, ale asi len 1% patentov je citovaných 24 a viac krát. Medzi iné indikátory úspešnosti technologickej

[3] Dobré meno

[4] V mnohých štátoch nie sú všeobecne patentovateľné vedecké teórie, estetické výtvory, matematické metódy, rastlinné alebo živočíšne odrody, objavy prírodných látok, komerčné metódy, metódy lekárskej starostlivosti (na rozdiel od medicínskych výrobkov) alebo počítačové programy. (WIPO, 2017b)

inovácie môžu patriť *súčasný index vplyvu* (Current impact index), *technologická sila* (Technology strength) v portfóliu patentov, *životný cyklus patentu* (Technology cycle time), *vedecké prepojenie* (Science linkage), pokiaľ ide o počet vedeckých článkov k patentu atď. (Tidd – Bessant, 2009) Potom napr. firmy, ktoré majú vyšší súčasný index vplyvu a vedecké prepojenie technologických patentov, majú často aj väčší trhový podiel a návratnosť investícií. Otázka trhových výsledkov však nie je len otázkou kvality technologickej inovácie, ale manažment prípravy výroby musí v tejto oblasti veľmi úzko spolupracovať aj s útvarom marketingu, najmä pokiaľ ide o trhový prieskum, ale aj s útvarom manažmentu ľudských zdrojov, pokiaľ ide o prípravu a motiváciu pracovníkov podieľajúcich sa na príprave/zmene výroby. Úspech technologickej inovácie závisí často od celkového projektového manažmentu i rýchlej implementácie danej technológie.

V mnohých odvetviach až približne polovica technologických patentov nie je priemyselne využitých. Napríklad v Japonsku je často využitý len každý piaty patent (JPO.GO, 2014). Preto patenty nie sú jediným ukazovateľom kvality technologickej inovácie. Firma sa môže rozhodnúť pre iné formy ochrany DV (ochranné známky, úžitkové vzory, copyrighty či priemyselné dizajny atď.), alebo pre žiadnu (preventívnu) ochranu DV a vyčlení si prostriedky pre následné riešenie (súdnych) sporov. Je však potrebné jasne špecifikovať (v rámci *stratégie na ochranu DV*), kto má vo firme akú úlohu pri ochrane DV, aké sú pravidlá pri využívaní firemného DV, ako riešiť inovácie zamestnancov v rámci pracovného času, ale aj mimo pracovného času, pri použitý firemných i vlastných prostriedkov, ktoré informácie poskytovať externým firmám atď.

Technológie používané vo výrobe môžu zahrňovať priemyselné roboty, humánne roboty, automatizované výrobné linky, pásy, automatizované dopravníky, počítačom kontrolované/integrované zariadenia (CNC, CIM), flexibilné výrobné stroje (FMS), expertné systémy, automatizované skladové technológie (ASRS), RFID-technológie, technológie e-výroby (eM) atď. Tieto technológie sú nazývané tzv. *Hard technology*. Firma však musí venovať primeranú pozornosť aj tzv. *Soft technology*, ako sú výrobné a obslužné postupy, znalosti, informácie, ale aj tzv. *Human technology*, ktorú tvoria tacitné znalosti, zručnosti, skúsenosti, prístupy, kultúra, postoje atď. Tzv. mäkkú a humánnu technológiu je tiež potrebné primerane využívať a ochraňovať, a to najmä prostredníctvom primeranej podnikovej kultúry a súvisiacim predpisom.

Vlastné výrobky obsahujú množstvo technológií, ktoré sú v nehmotnej forme, napr. SW program. Priemyselná firma však často využíva technológie aj pre prípravu výroby, pre dizajn, inžiniering, plánovanie procesov (CAD, CAE, CAPP), v administratíve, napr. pre správu dát, dátovú výmenu, manažment životného cyklu výrobku, alebo elektronické nákupy (PDM, EDI, PLM, STEP, E-procurement) atď. (Russel – Taylor, 2009) Aj pre predvýrobné etapy priemyselného podniku platí trend postupnej informatizácie a automatizácie procesov. Množstvo technológií priemyselný podnik získava z externých zdrojov už napr. pri zmluvnom výskume, v rámci tzv. živých laboratórií, alebo pri outsourcingu. Tieto technológie však môžu vyžadovať tiež určité procesy prípravy, implementácie či údržby. Nie je možné patentovať každú technologickú inováciu, podnik však musí identifikovať hlavné zdroje, kapacity, znalosti i procesy, kde vzniká vlastná technologická/konkurenčná výhoda. Tieto oblasti je potrebné primerane riadiť a ochraňovať, a tak predchádzať úniku informácií/odkopírovaniu technologického know-how a možným súdnym sporom. V tomto procese musí mať významnú úlohu aj manažment výroby.

2. Manipulácia s materiálom ako súčasť TPV a inovačných trendov

Ako už bolo spomenuté v úvode, integrálnou súčasťou systémového náhľadu na technologickú prípravu výroby (TPV) a na inovácie priemyselných podnikov je aj zabezpečenie logistických, resp. dopravno-manipulačných a príslušných manipulačno-obslužných procesov potrebných pre realizáciu materiálových tokov vyskytujúcich sa v jednotlivých fázach výroby.

Dopravná a manipulačná technika predstavuje špecifickú oblasť v rámci širokého spektra strojárskej produkcie. Stroje a zariadenia dopravnej a manipulačnej techniky sú nevyhnutnou súčasťou všetkých odvetví priemyselnej výroby, pričom ich charakteristickou vlastnosťou je to, že hoci vstupujú do takmer všetkých technologických, výrobných, montážnych a iných operácií v celom produkčnom reťazci priemyslu strojárskeho, stavebného, chemického, potravinárskeho, hutníckeho, potravinárskeho, ťažobného, energetického a pod., principiálne sa nepodieľajú na zvyšovaní kvalitatívnych vlastností a úžitkovej hodnoty finálnych produktov, ale ich vstup do produkčného procesu má za následok nárast výrobných a ostatných nákladov. Tento, na prvý pohľad zdanlivo paradoxný aspekt však celkom reálne znamená, že voľba konkrétneho dopravno-manipulačného zariadenia a s tým spojeného určitého spôsobu manipulácie s materiálom významným spôsobom ovplyvňuje nielen konštrukčno-technologické dispozície uvažovaného výrobného procesu, ale aj ekonomické aspekty danej priemyselnej produkcie, akými sú napr. investičné a prevádzkové náklady, cenotvorba výsledného produktu a pod.

Často je prezentovaný známy štatistický poznatok, podľa ktorého v rámci globálnej ekonomiky krajiny s vyspelou priemyselnou produkciou pracuje *v oblasti dopravy a manipulácie s materiálom až do 30%* z *celkového počtu pracovníkov* hospodárskej sféry a podľa prezentovaných ekonomických štúdií sú finančné vstupy potrebné na realizáciu dopravno-manipulačných operácií vyjadriteľné v objeme cca. 15÷25% z finálnych výrobných nákladov, pričom tento nákladový podiel na dopravu a manipuláciu sa nutne musí prejaviť v hodnote, resp. výslednej cene výrobku. Uvedené číselné údaje sú síce orientačné, štatisticky spriemerované a meniace sa v závislosti na konkrétnom odvetví priemyslu, avšak ilustračne potvrdzujú významnosť dopravno-manipulačných zariadení nielen z hľadiska technicko-prevádzkového, ale aj vzhľadom na relevantné ekonomické kritériá (Mantič a kol., 2016).

Rôznorodosť spektra prepravovaných materiálov je charakterizovaná predovšetkým ich mechanicko-fyzikálnymi vlastnosťami, ktoré sa v základných rysoch odvíjajú primárne od hmotného skupenstva konkrétneho materiálu a následne sú bližšie špecifikované podľa ďalších kritérií. Detailná znalosť vlastností prepravovaných materiálov umožňuje navrhovať optimálne dopravno-manipulačné zariadenia z hľadiska konštrukčno-prevádzkového, resp. optimalizovať projektovanie dopravno-manipulačného reťazca pre daný konkrétny prípad. Riešenie problematiky dopravy a manipulácie sa vyznačuje tiež tým, že nedôsledné poznanie, resp. ľahostajné nerešpektovanie mechanicko-fyzikálnych vlastností prepravovaného materiálu môže vážne narušiť funkčnosť celého logistického reťazca s následnými ekonomickými stratami vyplývajúcimi pre daný priemyselný podnik.

Vzhľadom na ekonomický dosah je možné oblasť dopravnej techniky a logistiky považovať za jeden z *prioritných zdrojov zvyšovania produktivity výroby* vo fáze jej technologickej prípravy a tiež pri inovácii priemyselných podnikov. Relevantnosť dopravno-manipulačných procesov podčiarkujú aj číselné vyjadrenia, podľa ktorých manipulácia s materiálom v strojárskych závodoch spotrebuje 15 až 40% z celkového výrobného času. V závislosti na charaktere výroby a na základe prieskumov vykonaných v strojárskych prevádzkach je na výrobu 1 tony hotových výrobkov potrebné prepraviť 100 až 180 ton materiálu formou

rôznych materiálových operácií a napr. v takej celosvetovo dynamicky sa rozvíjajúcej oblasti, akou je automotive, dosahuje počet dopravno-manipulačných operácií potrebných pri výrobe štandardného osobného automobilu hodnotu približne 100 000.

V rámci priemyselných podnikov je potrebné hodnotiť *ekonomický aspekt a inovačný potenciál manipulácie s materiálom* na nasledujúcich úrovniach:

a) *Medzioperačná doprava* – zasahuje do všetkých industriálnych oblastí a je neoddeliteľnou súčasťou technológie výroby. Preto už samotný projekt technologického usporiadania výroby musí korešpondovať s navrhnutým systémom manipulácie s materiálom.

b) *Medziobjektová doprava* – sa vyznačuje infraštrukturálnym charakterom a preto svojou optimalizáciou umožňuje dosiahnuť významné úspory investičných nákladov a energií.

c) *Ložné operácie* (nakládka, vykládka a prekládka) – tieto činnosti sú v rámci inovácie oblasťou typicky predurčenou pre aplikáciu systémov paletizácie a kontajnerizácie.

d) *Paletizácia a kontajnerizácia* – vo vzájomnej súčinnosti sofistikovaným spôsobom redukujú veľké množstvo manipulačných úkonov do jednej operácie v prípade menších predmetov a predstavujú aktuálny vývojový trend v dopravno-manipulačných systémoch.

e) *Obalové hospodárstvo*, *technika váženia a dávkovania* – uvedené tri komponenty dopravno-manipulačného reťazca sú relevantnou súčasťou komplexného riešenia materiálových tokov, špecificky v oblasti obslužných operácií (Kopas a kol., 2016).

Nezanedbateľným aspektom manipulácie s materiálom je tiež otázka jej *energetických a environmentálnych dopadov*. Organizácie musia určiť príležitosti na zlepšovanie a implementovať nevyhnutné činnosti na dosiahnutie zamýšľaných výstupov svojho systému manažérstva environmentu (STN EN ISO 14001:2016).

V tomto smere je vhodné v rámci technologickej prípravy výroby zvažovať ako súčasť inovačných trendov napr. *ekologizáciu prevádzky vysokozdvíhacích vozíkov*, reálne dosiahnuteľné úspory pri spotrebe elektrickej energie, resp. iných druhov využívaných energií a pod. Environmentálne orientovaná organizácia, ktorá manipuluje s materiálom musí vytvoriť, zaznamenávať a udržiavať používanie energie v kontexte k ochrane životného prostredia (Chovancová a kol., 2010). To zahŕňa určiť súčasné zdroje energie, zhodnotiť minulé a súčasné využívanie energie. Ďalej je potrebné určiť všetky manipulačné zariadenia, vybavenie a systémy, procesy a zamestnancov, pracujúcich pri manipulácii s materiálom, ktoré významne ovplyvňujú využívanie energie a jej spotrebu. Do úvahy a berie aktuálna miera hospodárenia s energiou a odhad pre budúce využívanie energie a jej spotrebu v rámci technologickej prípravy výroby (STN EN ISO 50001:2012).

3. Patentové aspekty technologických inovácií v globálnom meradle

Medzinárodné technologické patentové ukazovatele sú do určitej miery aj ukazovateľmi ekonomickej vyspelosti regiónu, štátu, či spoločenstva a veľmi často sú porovnávané s takými ukazovateľmi, ako sú dosiahnutý HDP, výdavky na vedu a výskum, počet obyvateľov, miera nezamestnanosti, počet vedeckých publikácií, alebo množstvo nových výrobkov. Porovnanie patentových ukazovateľov s týmito komplementárnymi ukazovateľmi môže napomôcť lepšie identifikovať technologicko-ekonomickú výkonnosť daných spoločenstiev i priemyselných firiem. Táto komparácia však často vyžaduje aj expertné

posúdenie týchto ukazovateľov pre objektívne výsledky. Je však dlhodobo potvrdené, že patentové analýzy do veľkej miery korelujú s názormi expertov (na úrovni podniku, alebo konkrétnej inovácie) v danej problematike (Lee, T. – Lee, CH., 2016). Patentové analýzy sú však často len úvodným krokom technologickej analýzy a plánovania daného subjektu. Hlavnou výhodou patentových informácií je určitá štandardizovaná forma, súhrn najdôležitejších informácií o danej technológii a verejná dostupnosť daných údajov. Napríklad, čím viac je patent citovaný v neskôr vydaných patentoch, tým viac sa rozvíja a je významnejšou daná oblasť technológie (Breitzman – Mogee, 2002). Firmy, regióny i spoločenstvá, ktoré vlastnia najviac patentov sú považované za technologicky viac rozvinuté. Atď.

V uvádzanej *patentovej analýze databázy WIPO* [5] (Svetovej organizácie duševného vlastníctva) nebolo možné urobiť externé expertné porovnania, výsledky však indikujú určité technologicko-ekonomické trendy. Zameranie tejto analýzy je na porovnanie vybraných kontinentov, tzn. ázijské krajiny, európske krajiny a krajiny Severnej Ameriky, ako určitý informačný vstup pre ďalšie mikro analýzy. V rámci makro analýzy, z hľadiska počtu obyvateľov, jasne dominuje Ázia 4 476 969 535 obyvateľov, na druhom mieste je Európa s 739 197 829 obyvateľov, a na treťom mieste je Severná Amerika s 363 140 460 obyvateľov (UN, 2017). Tento ukazovateľ do určitej miery indikuje kvantitatívne výsledky našej patentovej analýzy, boli tu však zistené aj určité kvalitatívne rozdiely. V období 2004-2015, ročný počet technologických patentových prihlášok vzrástol o 83,51%. V rovnakom období vzrástol počet technologických grantov o 97,7%. Na základe tohto vývoja je tu možné identifikovať určitú väčšiu úspešnosť (tzv. intenzifikáciu činnosti) technologických inovátorov, pokiaľ ide o získanie patentu (najmä v európskych krajinách). Patent je však nielen prostriedkom na ochranu DV, ale aj určitou komoditou (Geglobal research, 2014). Inovácie vznikajú tam, kde je primeraný trhový dopyt, kúpyschopnosť, konkurencia či podpora. To znamená, že aj technologické inovácie sa viac rozširujú tam, kde je vyspelejší a stabilnejší trh. Problematika podpory technologických inovácií je nielen otázkou investícií, štátnych záruk či medzinárodných programov, ale aj otázkou podpory znalostnej ekonomiky, férového trhového prostredia, univerzitného výskumu a vzdelávania, ale aj kvality patentového procesu, kde často univerzity participujú. Napr. *Európsky patentový úrad* (EPO) sa pripravuje na certifikáciu ISO 9001 pre zlepšenie kvality a komplexnosti hodnotenia a udeľovania patentov, vrátane patentových informácií a činností po poskytnutí grantu. Otázka kvality patentu je aj otázkou rýchlosti patentovej procedúry. Inovátori žiadajúci o rešeršnú správu s písomným stanoviskom o patentovateľnosti inovácie, môžu byť napr. v rámci EPO vybavení už do 6 mesiacov. V rámci USPTO je to až okolo 20 mesiacov v závislosti od technológie, čo môže byť značný konkurenčný rozdiel. EPO tiež plánuje implementovať prvý jednotný patent do konca roku 2017. (EPO, 2016) USPTO tiež zabezpečuje nezávislú certifikáciu ISO 9000 pre procesy udržiavania štandardov kvality súvisiace s analýzou/auditom, hodnotením a udeľovaním práv na duševné vlastníctvo (DV). Udržiavanie certifikácie ISO 9000 je tiež základnou súčasťou medzinárodných vzťahov USPTO, ktoré sú nevyhnutné pre vykonávanie danej činnosti. (USPTO, 2017)

Na základe tejto analýzy, viac ako 1,5 milióna technologických patentových prihlášok je registrovaných ročne v rámci WIPO od roku 2013. Napríklad, v roku 2013 medzi najväčšie technologické trendy patrili, napr. *Personal Cloud, The Internet of Things, Strategic Big Data, Integrated Ecosystems* atď. (Gartner, 2013) Rozvíjajúci sa vzťah medzi ľuďmi a strojmi, pokiaľ ide o humánne roboty, alebo umelú inteligenciu atď. sú tiež významné témy technologického výskumu aj v poslednom období, pokiaľ ide o novú priemyselnú revolúciu (Industry 4.0). Na druhej strane, z globálneho ekonomického hľadiska, počet ľudí žijúcich v

[5] WIPO má v súčasnosti 189 členov/krajín.

extrémnej chudobe v roku 2013 bol menej ako 50% toho, čo bolo v roku 1990. Svetová banka si dala ambiciózny cieľ do roku 2030, snaží sa o zmenšenie podielu ľudí, ktorí žijú z menej ako 1,25 USD denne na 3%. (WB, 2013) Podpora špičkových technológií na jednej strane a podpora najchudobnejších ľudí na druhej strane, aj to sú témy globálneho rozvoja od roku 2013. Preto pri podpore technológií je nevyhnutné brať do úvahy aj socio-ekonomické a environmentálne hľadiská.

Každoročná správa *The Global Competitivness report*, ktorú zverejňuje svetové ekonomické fórum, obsahuje komplexné hodnotenia 140 krajín sveta na základe indexu globálnej konkurencieschopnosti (Global Competitiveness Index). Ekonomické fórum sa zaoberá otázkami optimalizácie globálnej ekonomiky a rovnako sa usiluje o spoluprácu medzi verejným a súkromným sektorom. Tento index tvorí dvanásť pilierov, v ktorých sú hodnotené svetové krajiny z rôznych hľadísk konkurencieschopnosti škálou od 1 po 7, pričom 1 je najhoršia a inverzne 7 je najlepšia hodnota. V dvanástom pilieri vydania reportu z roku 2015-2016 sú zoradené svetové krajiny z hľadiska indexu globálnej konkurencieschopnosti v rámci inovácií nasledovne. Najlepšie sa z krajín mimo Európskej únie (EÚ) na prvom mieste s hodnotou (5.8) umiestnilo Švajčiarsko, ktoré si tak v súčasnosti drží pozíciu pred tretím Izraelom (5.6), Spojenými štátmi (5.6) a piatym Japonskom (5.5). V rámci krajín EÚ sa najlepšie umiestnilo na druhom mieste Fínsko s hodnotou (5.7), nasledujú Nemecko, Švédsko (5.5) a v prvej desiatke sa nachádzajú aj Holandsko (5.4) a tiež Dánsko (5.1). Slovensko sa umiestnilo na konci prvej polovice tabuľky s hodnotou (3.3) a spomedzi susedných krajín mu patrí posledné miesto. Najnižšiu inovačnú schopnosť z krajín EÚ má Bulharsko (3.1), ktorému tak patrí 94. miesto v rebríčku. (WEF, 2016) Z uvedených hodnôt a umiestnení je možné pozorovať ako inovačná schopnosť svetových krajín pôsobí na ich vzájomnú konkurencieschopnosť. Dôkazom je umiestnenie lídrov z hľadiska inovačnej schopnosti, pretože majú zároveň najkonkurencieschopnejšie ekonomiky v rámci celosvetového hospodárstva. Naopak krajiny umiestnené na posledných miestach sa z hľadiska inovačnej schopnosti neprezentujú konkurencieschopnou ekonomikou a hospodárstvom. Z uvedeného je dôležité, aby sa svetové krajiny v nepretržite rozvíjajúcom sa svete zameriavali na zvýšenie inovačnej schopnosti a dokázali si tak upevniť lepšie postavenie na trhu z globálneho hľadiska.

Mnohé členské štáty EÚ disponujú nadpriemernou inovačnou schopnosť, resp. produkujú inovácie, ktoré sú zdrojom konkurenčnej výhody na svetovom trhu, pričom vynakladajú úsilie, aby im inovácie neboli odcudzené konkurenciou. Práve tu sa tvorí priestor pre udeľovanie patentov ako formy ochrany počas doby využívania inovácie. EPO za roky 2014-2016 obdržalo 60 790 prihlášok v oblasti priemyselného inžinierstva. Najväčší počet prihlášok predstavuje logistika, resp. manipulačná technika (36%), nasleduje transformačná technológia (motory, čerpadlá, turbíny) (15%), ostatné špeciálne stroje (14%), obrábacie stroje (11%). Najmenší počet prihlášok predstavujú textilné a papierenské stroje (8%). (EPO, 2016) Na základe uvedených percentuálnych vyjadrení je zrejmé, že inovácie a vynálezy v oblasti priemyselného inžinierstva zameriavajú na logistiku. Naopak vplyvom súčasnej priemyselnej revolúcie a elektronizácie EPO obdržalo najmenej prihlášok na papierenské stroje a zariadenia.

Najväčší nárast technologických patentov v rokoch 2004-2015 bol zaznamenaný v Ázii (+131,4%), nasleduje Severná Amerika (+58,5%) a najmenší nárast bol evidovaný v krajinách Európy, len +11,5%. Severná Amerika, západná Európa a východná Ázia predstavujú dominantné oblasti, pokiaľ ide o svetovú priemyselnú produkciu. Pričom v roku 1980 to bolo okolo 80%, v posledných rokoch je to okolo 70% celosvetovej produkcie. (Giovannini a kol., 2017) Tento pokles bol spôsobený najmä poklesom podielu priemyselnej výroby v Európe a Severnej Amerike, naopak vo východnej Ázii tento podiel rastie.

Najvýznamnejšiu zmenu v technologickej štruktúre zaznamenala tiež Ázia. Za posledných 40 rokov sa jej podiel v oblasti špičkových technológií zvýšil o 10% oproti konkurencii. Ekonomický úspech Ázie vo vzťahu k iným rozvojovým regiónom bol sprevádzaný nielen zvýšením výrobného podielu v hospodárstve, ale aj technologickou modernizáciou vo výrobe. V čele s Čínou, Ázia (a Tichomorie) zaznamenali nový vrchol vo výške 7,145 mld. USD, pokiaľ ide o export výrobkov v roku 2013, s priemerným rastom 11,6% ročne. Pokiaľ ide o ázijské krajiny, najväčší podiel na raste priemyselnej výroby mala *juhovýchodná Ázia*, najmä krajiny ako Malajzia, Singapur, Indonézia, Thajsko atď. V minulosti bola juhovýchodná Ázia kritickou súčasťou globálneho obchodného systému, pričom najdôležitejšou komoditou boli koreniny, v súčasnosti sú to stále viacej high-tech. (Geiger, 2014) Tento vývoj indikuje, že nielen priemyselná výroba, ale aj obchod zaznamenáva stále rastúci objem viac sofistikovaných výrobkov, zároveň technológie tvoria stále väčšiu hodnotu mnohých priemyselných výrobkov (Eaton a kol., 2016).

Európa ako celok prispieva k rastu globálneho priemyselného exportu, ale jej príspevok je skôr priemerný, rovnako to platí pokiaľ ide o technologické inovácie. (UNIDO, 2016; Innobarometer, 2016) V posledných rokoch, krajiny s vysokými hodnotami štrukturálnych zmien a vyšším prínosom technologického pokroku k ekonomickému výkonu sú väčšinou východoeurópske krajiny, ako je Slovensko, Maďarsko a Česká republika. Ich technologický pokrok je však značne závislý od zahraničných investícií a medzinárodných výskumných programov. V tomto kontexte môže mať vystúpenie Veľkej Británie z Európskeho spoločenstva značne negatívny vplyv, aj pokiaľ ide o podporu európskych projektov v oblasti nových technológií. Je treba brať do úvahy aj synergie technologického výskumu i spoločného trhu v rámci EÚ a vplyv nových technológií na hospodársky rast, podporu zamestnanosti, či zvýšenie exportu hospodárskeho spoločenstva (Bourke– Roper, 2016).

V stredne- a nízkopríjmových krajinách najväčší podiel na raste ekonomického produktu majú kapitálové investície, prírodné zdroje a energia. Vo vyššie- a vysokopríjmových krajinách má najväčší podiel rast produktivity, pokiaľ ide o úspory pracovnej sily a zdrojov, ale aj technologické inovácie, ktoré uľahčujú manuálnu prácu, automatizujú výrobu i obsluhu. (Sattar – Mahmood, 2011) Pričom najmä kapitálové investície a nové technológie prispievajú k rastu príjmov v mnohých krajinách. (UNIDO, 2016) Ide však o dlhodobý proces, hlavne pri vytváraní udržateľných technologických kapacít, či vytváraní trhového prostredia. Mnohé nízkopríjmové krajiny však radšej využívajú transfer technológií, spoločné podnikanie, či predaj technologickej inovácie zahraničnému partnerovi. *Dohoda o právach duševného vlastníctva* z roku 1994 (TRIPS) zaväzuje rozvinuté krajiny podporovať technologický/ekonomický pokrok tým, že pomáhajú rozširovať technológie do rozvíjajúcich sa krajín, aby im pomohli vytvoriť vhodnú technologickú základňu (WTO, 1994). Tento systém však nefunguje tak, ako sa očakávalo. Inštitúcie v rozvojových krajín často nemajú možnosť/kapacity (dokonca prečítať si správy o tejto činnosti rozvinutých ekonomík), nieto hodnotiť, či zahraničná intervencia prispieva k ich technologickému pokroku (Bardel – Krylová, 2014). Tieto procesy sú také efektívne, nakoľko domáca ekonomiky získa nielen nové technológie, alebo kapitál, ale aj nové znalosti, informácie, trhy a kontakty vyplývajúce z kooperačných inovačných procesov.

Technologické znalosti sú menej imitovateľné a často vyžadujú učenie sa, skúsenosti, konzultácie, testovanie, redizajn, dlhodobejší monitoring atď. (Hutter, 2017) To všetko často chýba nielen vo firmách, ktoré nakupujú nové technológie, ale aj v regiónoch s nízkou inovačnou aktivitou. Problémom je často aj nízka podpora akademického výskumu a vzdelávania nielen zo strany štátu, ale aj firiem i médií. Azda najznámejšie príklady firiem a ekonomík, ktoré asimilovali a využili nové technológie, a tak sa presunuli z nízkopríjmovej

úrovne do vyšších úrovní sú štyri ázijské tigre.[6] Existuje tu však určitý paradox, pokiaľ ide o vyspelosť ekonomiky. Najväčší nárast technologických patentových prihlášok bol evidovaný v krajinách s vyššími-strednými príjmami (+452,7%), na druhom mieste boli krajiny s nižšími-strednými príjmami (+109,4%), nasledovali krajiny s nízkymi príjmami (+49,25%), a na poslednom mieste boli krajiny s vysokými príjmami (+18,51%). Tento (dynamický) patentový paradox môže vyplývať už z určitého nasýtenia trhu vo vysoko príjmových ekonomikách, mnohé špičkové firmy investujú viac v rozvíjajúcich sa krajinách, kvôli výhodnejším podmienkam (náklady, odvody, ceny, úroky). V stredne príjmových krajinách môžu byť tiež výhodnejšie určité podporné podmienky (daňové úľavy, granty, záruky), pokiaľ ide o technologické inovácie atď. Tento paradox však platí najmä pre dynamiku patentových prihlášok. Rozvíjajúce sa ekonomiky majú celkovo nižšie inovačné stimuly, aj pokiaľ ide o technologické inovácie. Napríklad väčšina krajín OECD poskytuje daňové kredity na výskum a vývoj (VaV), pokiaľ ide o objem realizovaných výdavkov na VaV. Rakúsko, Česká republika, Dánsko, Maďarsko, Turecko, Veľká Británia poskytujú určitý daňový príspevok. Belgicko, Maďarsko, Holandsko, Španielsko, Turecko poskytujú mzdový odpočet zrážkovej dane na mzdy v oblasti výskumu a vývoja. Austrália, Kanada, Francúzsko, Maďarsko, Japonsko, Kórea, Nórsko, Veľká Británia poskytujú širšie daňové stimuly pre výskum a vývoj pre malé a stredné podniky atď. (OECD, 2012; OECD 2017) Na Slovensku väčšinu štátnych stimulov dostávajú investori vo forme daňových úľav alebo dotácií zväčša na nákup hmotného majetku. Často ide o väčšie firmy, ktoré majú určité finančné problémy a museli by prepúšťať zamestnancov. Pri ukazovateľoch technologických patentových prihlášok je vývoj značne rozdielny oproti patentovým grantom, kde bol najmenší nárast zaznamenaný v krajinách s nižšími-strednými príjmami.

Záver

Technológia celkovo umožňuje zvýšiť automatizáciu výroby, zlepšiť obsluhu, logistiku i produktivitu podnikov i spracovanie odpadov, zlepšiť kvalitu výrobkov a služieb, ale aj kvalitu života ľudí. Technológia však môže viesť aj k vysokým investíciám a neefektívnosti výroby, prepúšťaniu ľudí zo zamestnania, poškodeniu zdravia, znečisteniu prostredia emisiami, hlukom i odpadmi atď. Preto *je primárnou zodpovednosťou manažérov, ale aj vedcov*, inovátorov i užívateľov primerane využiť pozitívne stránky technológií a minimalizovať negatívne dopady technológií. Miera *potrebnej technologizácie spoločnosti* by mala byť neustále analyzovaná a do určitej miery limitovaná aj prostredníctvom takýchto článkov. V oblasti priemyselného manažmentu a znalostnej ekonomiky je potrebné venovať primeranú pozornosť nielen tzv. *Hard technology* (stroje, prístroje, zariadenia), ale aj tzv. *Soft technology*, ako sú výrobné a obslužné postupy, technologické procesy, informácie, i tzv. *Human technology*, ktorú tvoria implicitné i tacitné znalosti, zručnosti, skúsenosti, postoje atď. Tzv. mäkká a humánna technológia má veľký vplyv na to, ako je tzv. tvrdá technológia využívaná a preto je ju potrebné tiež optimalizovať a primerane ochraňovať, a to aj prostredníctvom podnikovej/inštitucionálnej podpory i kultúry a súvisiacich predpisov. Problematika podpory účelných a bezpečných technologických inovácií nie je len otázkou podnikových investícií, štátnych záruk či medzinárodných programov, ale aj otázkou podpory znalostnej ekonomiky, udržateľnej spoločnosti, ochrany životného prostredia, univerzitného vzdelávania a výskumu, ale aj kvality patentového procesu, kde často univerzity participujú. Pre ekonomicky/technologicky rozvíjajúce sa krajiny (kde stále patrí aj SR/ČR) je podpora technologických inovácií aj o podpore konkurenčného trhu, férových

[6] Kórejská republika, Hongkong, Singapur a Taiwan.

trhových vzťahov a účelnej/primeranej legislatívy. Aj na základe tohto výskumu možno potvrdiť, že inovácie sa dlhodobo rozširujú tam, kde existuje vyspelejší a stabilnejší trh, primeraná legislatíva i ochrana duševného vlastníctva (DV). Efektívna ochrana i domáhanie sa práv k DV celkovo umožňujú firmám predchádzať krízovým stavom a tak viac investovať a inovovať, zamestnať viac ľudí, lepšie chrániť životné prostredie a naopak.

Na základe syntézy zistených údajov, viac ako 1,5 milióna technologických patentových prihlášok je registrovaných ročne v rámci WIPO od roku 2013. Celkovo v rokoch 2004-2015 bol najväčší nárast technologických patentových grantov zaznamenaný v Ázii (+175,8%), nasleduje Severná Amerika (+80,7%) a najmenší nárast bol evidovaný v krajinách Európy (len +3,4%). Pri tomto indikátore možno identifikovať nielen najväčší počet, ale aj najväčšiu dynamiku patentovania technologických inovácií ázijskými krajinami. Na základe získaných údajov, tieto krajiny mali menšie výkyvy, pokiaľ ide o technologické inovácie, aj počas tzv. Finančnej krízy. V týchto krajinách sú však väčšie regionálne rozdiely v porovnaní napr. s krajinami Severnej Ameriky a Európy (UNHCR, 2012). Podobne, priemerná celosvetová úspešnosť pri podávaní technologických patentov bola 44% ku koncu roka 2015, to znamená, že v Ázii bola táto úspešnosť pod priemerom oproti Severnej Amerike a Európe. Pokiaľ ide o vyspelosť ekonomiky, tak najväčší nárast technologických patentov bol evidovaný v krajinách s vyššími-strednými príjmami (+338,1%), na druhom mieste boli paradoxne nízko príjmové krajiny (+95%), nasledovali krajiny s vysokými príjmami (+54,5%), a na poslednom mieste boli krajiny s nižšími-strednými príjmami (+6,74%). Pri tomto ukazovateľovi možno identifikovať určitú menšiu dynamiku (nasýtenie) technologického vývoja v najvyspelejších ekonomikách sveta. Pričom práve na krajiny s vysokými príjmami pripadá najviac až okolo 64% globálneho HDP a približne len 16% obyvateľstva zeme. To znamená aj najviac prostriedkov na investície do nových technológií. Na krajiny s vyššími-strednými príjmami pripadá približne 28% globálneho HDP a 35% obyvateľstva. Na krajiny s nižšími-strednými príjmami pripadá približne 7,5% globálneho HDP a 40% obyvateľstva. A na krajiny s najnižšími príjmami pripadá približne len 0,5% globálneho HDP a 9% obyvateľstva. (WB, 2017a; WB, 2017b) Z hľadiska vyspelosti ekonomiky, najviac technologických patentov však stále pripadá na krajiny s vysokými príjmami (75%), nasledujú krajiny s vyššími-strednými príjmami (22%). Na krajiny s nižšími-strednými a najnižšími príjmami pripadá len 3% technologických patentov. To znamená, že na krajiny s vysokými a vyššími-strednými príjmami pripadá približne 97% technologických patentov, 92% globálneho HDP a 51% obyvateľstva. Na krajiny s nižšími-strednými príjmami a nízkymi príjmami pripadá len 3% technologických patentov, 8% globálneho HDP, ale 49% obyvateľstva. Tento výsledok potvrdzuje mnohé tvrdenia, že technologické inovácie a (znalostne, organizačne a finančne náročnejšie) patenty sú doménou vyspelých ekonomických krajín sveta, pričom menej a nízko ekonomicky rozvinuté ekonomiky sa vývojovo zatiaľ nepribližujú týmto vyspelým ekonomikám, čo vedie aj k mnohým ekonomickým a sociálnym rozdielom.

Literatúra

1. BARDEL, O. – KRYLOVÁ, P. (2014): Are We Doing Enough to Support Technology Transfer to Developing Countries?, *Centre for global development,* [on-line], <https://www.cgdev.org/blog/are-we-doing-enough-support-technology-transfer-developing-countries>, February 2017.
2. BOURKE, J. – ROPER, S. (2016): AMT adoption and innovation: An investigation of dynamic and complementary effects, *Technovation*, Vol. 55-56, pp. 42–55, ISSN: 0166-4972.

3. BREITZMAN, A. F. – MOGEE, M. E. (2002): The many applications of patent analysis, *Journal of Information Science*, Vol. 28, No. 3, pp. 187–205, ISSN: 0165-5515.
4. CBINSIGHTS (2016): The 'big 5' patents report: Google, Apple, Facebook, Amazon, & Microsoft, *CBInsights*, [on-line], <https://www.cbinsights.com/research-apple-google-patents-report>, January 2017.
5. CHOVANCOVÁ, J. – MAJERNÍK, M. – JURÍKOVÁ, J. (2010): Integrated management systems, *Komunikacie*, Vol. 12, No. 1, pp. 70-74, ISSN: 1335-4205.
6. DOLATA, U. (2017): Apple, Amazon, Google, Facebook, Microsoft Market Concentration – Competition – Innovation Strategies, *SOI Discussion Paper 2017-01*, University of Stuttgart, pp. 1–32, ISSN: 2191-4990.
7. EATON, J. – KORTUM, S. – NEIMAN, B. – ROMALIS, J. (2016): Trade and the Global Recession, *American Economic Review*, Vol. 106, No. 11, pp. 3401–3438, ISSN: 0002-8282.
8. EPO (2016): Annual report, *European patent office*, [on-line], <https://www.epo.org/about-us/annual-reports-statistics/annual-report/2016.html>, May 2017.
9. EUROSTAT (2017): Innovation statistics, *Eurostat*, [on-line], <http://ec.europa.eu/eurostat/statistics-explained/index.php/Innovation_statistics>, April 2017.
10. GARTNER (2013): Gartner's 2013 Hype Cycle for Emerging Technologies Maps Out Evolving Relationship Between Humans and Machines, *Gartner*, [on-line], <http://www.gartner.com/newsroom/id/2575515>, May 2017.
11. GEGLOBALRESEARCH (2014): The State of European Innovation, *Geglobalresearch*, [on-line], <http://www.geglobalresearch.com/media/State-of-European-Innovation-White-Paper-2014.pdf>, May 2017.
12. GEIGER, T. (2014): Top 10 most competitive economies in Asia Pacific, *World economic forum*, [on-line], <https://www.weforum.org/agenda/2014/09/top-10-competitive-economies-asia-pacific/>, June 2017.
13. GIOVANNINI, F. – KIMURA, S. – TSO, H.-M. – YI, J. (2017): Petty Patents Around the World, *Osha Liang*, <https://oshaliang.com/newsletter/petty-patents-around-the-world/>, June 2017.
14. HUTTER, V. (2017): Industrial Design is Key to Growth of Manufacturing Sector, *The National Endowment for the Arts*, [on-line], <https://www.arts.gov/news/2017/industrial-design-key-growth-manufacturing-sector>, May 2017.
15. INNOBAROMETER (2016): Innobarometer 2016 – EU business innovation trends, *EU Open data portal*, [on-line], <http://data.europa.eu/euodp/en/data/dataset/S2064_433_ENG>, May 2017.
16. JPO.GO (2014): Annual report 2014: Current Status of Intellectual Property Rights, *Japan patent office*, [on-line], <https://www.jpo.go.jp/shiryou_e/toushin_e/kenkyukai_e/pdf/annual_report2014/part1.pdf, May 2017.
17. KOPAS, M. – KUĽKA, J. – MANTIČ, M. – FALTINOVÁ, E. – BIGOŠ, P. (2016): Increasing durability in steel wire rope installed in special transport equipment, *Scientific Journal of Silesian University of Technology*, Series Transport. Vol. 91, pp. 71–80, ISSN: 0209-3324.
18. LEE, T. – LEE, CH. (2016): China: Understanding utility model patent and design patent protection, *Lexicology*, [on-line], <http://www.lexology.com/library/detail.aspx?g=d511f713-c0df-4a09-a64f-f7807b1c3b97>, May 2017.
19. MANTIČ, M. – KUĽKA, J. – KOPAS, M. – FALTINOVÁ, E. – PETRÓCI, J. (2016): Special Device for Continuous Deceleration of Freight Cableway Trucks, *Scientific Journal of Silesian University of Technology*, Series Transport. Vol. 91, pp. 89-97, ISSN: 0209-3324.

20. OECD (2012): OECD Science, Technology and Industry Outlook 2012, *OECD*, [on-line], <https://www.oecd.org/sti/sti-outlook-2012-chapter-1-innovation-in-the-crisis-and-beyond.pdf>, May 2017.
21. OECD (2017): Measuring Tax Support for R&D and Innovation, *OECD*, [on-line], <http://www.oecd.org/science/rd-tax-stats.htm>, May 2017.
22. PALMER, A. (2017): The 5 Best-Performing Tech Stocks of 2017's First Quarter, *The Street*, [on-line], <https://www.thestreet.com/slideshow/14068313/5/the-5-best-performing-tech-stocks-of-2017-s-first-quarter.html>, May 2017.
23. RUSSEL, R. S. – TAYLOR, B. W. (2009): *Operation management, Along the Supply Chain*. Chichester: John Wiley and Sons, Ltd., ISBN: 978-0-470-23379-5.
24. SATTAR, A. – MAHMOOD, T. (2011): Intellectual Property Rights And Economic Growth: Evidences From High, Middle And Low Income Countries, *Pakistan Economic and Social Review*, Vol. 49, No. 2, pp. 163–186, ISSN: 1011-002X.
25. STN EN ISO 14001:2016 Systémy manažérstva environmentu. Požiadavky s návodom na používanie (April, 2016)
26. STN EN ISO 50001:2012 Systémy energetického manažérstva. Požiadavky s návodom na používanie (June, 2012)
27. TIDD, J. – BESSANT, J. (2009): *Managing innovation, Integrating Technological, Market and Organizational Change.* Chichester: John Wiley and Sons, Ltd., 622 p., ISBN: 978-0-470-99810-6.
28. UN (2017): World population prospects: The 2017 revision, *UN*, [on-line], <http://www.un.org/en/development/desa/population/>, June 2017.
29. UNHCR (2012): A year of crises, *UNHCR*, [on-line], <http://www.unhcr.org/statistics/country/4fd6f87f9/unhcr-global-trends-2011.html>, May 2017.
30. UNIDO (2016): Industrial Development Report 2016, *UNIDO*, [on-line], <https://www.unido.org/fileadmin/user_media_upgrade/Resources/Publications/EBOOK_IDR2016_FULLREPORT.pdf>, May 2017.
31. USPTO (2017): ISO 9001 Audit and Certification Services, *USPTO*, [on-line], <https://www.uspto.gov/about/vendor_info/current_acquisitions/acs_hom.jsp>, May 2017.
32. WB (2013): Annual report 2013, *World Bank*, [on-line], <https://openknowledge.worldbank.org/bitstream/handle/10986/16091/9780821399378.pd>, May 2017.
33. WB (2017a): GDP growth (annual %), *World Bank*, [on-line], <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&start=2004>, May 2017.
34. WB (2017b): World bank open data, *World Bank*, [on-line], <http://data.worldbank.org/>, May 2017.
35. WEF (2016): World Economic Forum Annual Meeting 2016, *WEF*, [on-line], <https://www.weforum.org/events/world-economic-forum-annual-meeting-2016>, October 2017.
36. WIPO (2017a):WDI 2017 Maps, *WIPO*, [on-line], <https://www3.wipo.int/ipstats/index.htm?tab=patent>, April 2017.
37. WIPO (2017b): Patents, *WIPO*, [on-line], <http://www.wipo.int/patents/en/faq_patents.html#accordion__collapse__09_a>, April 2017.
38. WTO (1994): Trade-Related Aspects of Intellectual Property Rights, *WTO*, [on-line], <https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm>, May 2017.

Daný príspevok je jedným z vedeckých výstupov projektu VEGA (1/0235/17), 2017-2019, Systémová identifikácia komplexnejších predpokladov pre podporu priemyselných inovácií a zamestnanosti v menej rozvinutých regiónoch SR.

Kontakt

Doc. Ing. Marek Jemala, PhD., Doc. Ing. Alena Pauliková, PhD., Ing. Patrik Brigant
Ústav priemyselného inžinierstva a manažmentu
Materiálovotechnologická fakulta so sídlom v Trnave
Slovenská technická univerzita
marek.jemala@stuba.sk

REALIZACE PŘENOSNÉHO ETALONU NA KALIBRACI OČNÍCH TONOMETRŮ

REALIZATION OF THE PORTABLE ETALON ON CALIBRATION OF OPTICAL TONOMETERS

Jan Rybář, Miroslav Chytil, Stanislav Ďuriš, Simona Klvačová, Alexandra Javorská, Milan Kubiš

Abstrakt

Příspěvek se zabývá realizací přenosného etalonu na kalibraci očních tonometrů. Jedná se o návrh a využití měřící aparatury k měření nitroočního tlaku pomocí tlakového pístu především na bezkontaktním tonometru, ale i u kontaktních metod měření. Navržená měřicí aparatura poskytuje hodnoty pro metrologické zabezpečení očních tonometrů. Tento inovativní návrh umožňuje provádět rychlé a efektivní kontroly těchto přístrojů. Jedná se o měřicí aparaturu, která je krokem k následným kalibracím očních přístrojů – tonometrů přímo v očních ambulancích. Správná kalibrace těchto přístrojů zabezpečí přesné stanovení nitroočního tlaku a napomůže k diagnostice glaukomových onemocnění u příchozích pacientů k očnímu lékaři.

Klíčová slova: *aparatura, kalibrace, oční tonometr, měření, přenosný etalon.*

Abstract

The article deals with the realization of portable standard for the calibration of optical tonometers. This is the design and use of measuring instruments for the measurement of intraocular pressure by the help of pressure piston, primarily on the contactless tonometer, but also on the contact methods of measurement. The proposed measuring equipment provides the values for the metrological assurance of optical tonometers. This innovative design enables you to perform the fast and effective control of these devices. This is the measuring equipment, which is the step to the subsequent calibrations of optical devices – the tonometers directly in the optical ambulances. The correct calibration of these devices will ensure the accurate determination of intraocular pressure and it will help to diagnose the glaucoma illnesses in the incoming patients to the ophthalmologist.

Key words: *equipment, calibration, optical tonometer, measurement, portable standard.*

1 ÚVOD

Oční tonometry slouží k diagnostice nitroočního tlaku. Této správné diagnostiky, zda přístroj měří správně, dosáhneme realizací přenosného etalonu (modelu oka) na kalibraci očních tonometrů. Navržená měřicí aparatura poskytuje hodnoty pro metrologické zabezpečení očních tonometrů. Nitrooční tlak je důležitým parametrem, který dokáže signalizovat začínající nebo pokročilé glaukomové onemocnění. Glaukom je jedna z hlavních světových příčin nevratné slepoty. Když je nitrooční tlak vyšší, než je obvyklé, je nejdůležitějším a zároveň jediným léčitelným faktorem pro předcházení tomuto onemocnění.

2 NITROOČNÍ TLAK

Uvnitř oka je tzv. nitrooční tlak, který je důležitým parametrem pro určování patologických jevů – glaukomových onemocnění. Hodnota nitroočního tlaku udává poměr mezi rychlostí

tvorby a odtokem nitrooční tekutiny. Jako normální nitrooční tlak bereme stav, kdy nedojde k poškození zrakového nervu za konstantního udržení prostředí uvnitř oka. V případě, že dynamika nitrooční tekutiny v oku neudržuje stabilní objem, a tedy nitrooční tlak není stabilní, tak dochází ke stavu špatné propustnosti odtokových cest a k hromadění nitrooční tekutiny, což má za následek zvyšování nitroočního tlaku. [4, 8]
Standardně se hodnoty nitroočního tlaku u dospělého jedince pohybují v rozmezí 11 – 21 mm Hg. Hodnoty nad 21 mm Hg se považují za suspektní. Rizikem tohoto onemocnění je především to, že pacient dlouhou dobu nepociťuje žádné změny ve vidění. V oční ordinaci tedy lékař odhalí během prohlídky pacienta často již závažné glaukomové změny. [4, 5, 9]

2.1 Rizikové faktory

Glaukomovými onemocněními charakterizujeme chronickou, progresivní, ireverzibilní neuropatii zrakového nervu, většinou v souvislosti se vzrůstajícím nitroočním tlakem. Historie glaukomu pochází z roku 400 před naším letopočtem, kdy Hippokrat popsal nazelenalou barvu pupily po glaukomovém záchvatu jako tzv. „glaukosis“. [5]
Hodnoty nitroočního tlaku, resp. glaukom nelze vyléčit. Vznik glaukomu je ireverzibilní a cílem pro léčbu je snižování nitroočního tlaku, aby se zabránilo progresi neuropatie zrakového nervu. Léčba je konzervativní, chirurgická nebo laserová. Základní léčbou pro snížení hodnot nitroočního tlaku je aplikace očních kapek. [5]
K tomu, abychom mohli definovat správně nitrooční tlak, používáme oční tonometry, které jsou kontaktní nebo bezkontaktní. Přístrojů pro měření je celá řada. Nás ovšem zajímá, zda tyto přístroje z hlediska metrologického zabezpečení měří správně. [5]
Víme, že na hodnoty nitroočního tlaku má vliv několik faktorů, jako například: věk a pohlaví jedince, zátěž, etnický původ, refrakční vady, oběhové poruchy, motorika očí a očních víček, onemocnění, centrální tloušťka rohovky, a jiné. Glaukom samotný je často asociován se zvýšeným nitroočním tlakem. Pro léčbu se uplatňují farmaka, která nitrooční tlak dokáží snížit, lze využít i laserové ošetření nebo chirurgické drenážní operace. Než však tyto farmaka lékař naordinuje, musí mít přesně naměřené hodnoty nitroočního tlaku a k přesným hodnotám je nutné mít přístroj, který měří správně. [4, 5, 9]

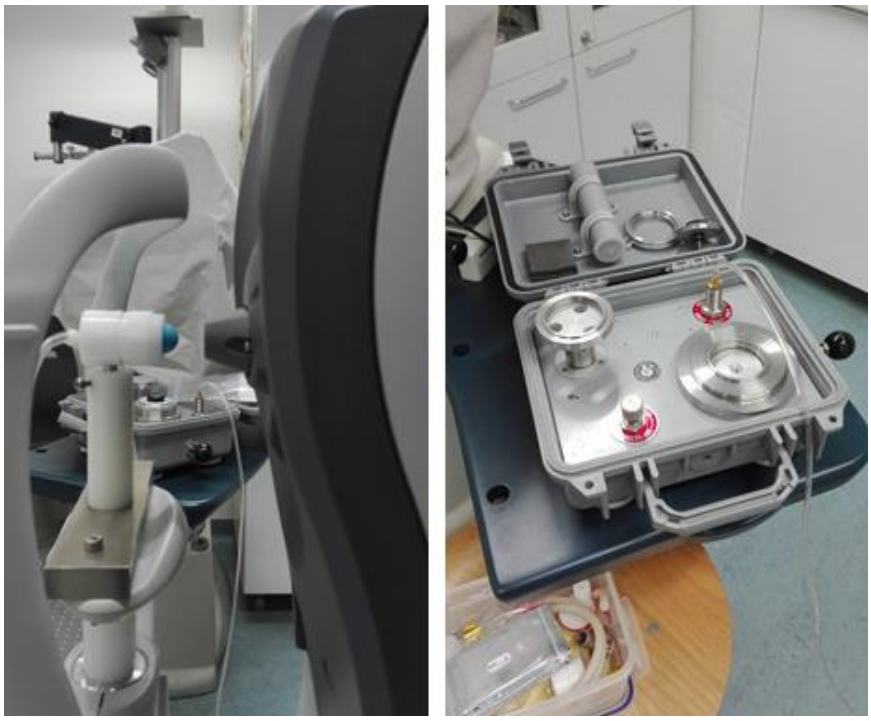
3 TONOMETRY

Nejjednodušší způsob, jak si orientačně vyšetřit nitrooční tlak, je palpace přes oční víčko, kdy srovnáváme střídavě tlak vyvíjený na prsty a porovnáváme jeho rozdíl mezi pravým a levým okem. Tato metoda je ovšem určena pouze pro odborníky v oboru a používá se pouze v případě, že není možné použití jiné techniky. Nitrooční tlak se tedy v našem případě měří tonometry. Nepřímo je odvozen z výše tlaku potřebného k deformaci centrální plochy rohovky, deformace se dosáhne oploštěním nebo impresí. Skutečný nitrooční tlak uvnitř oka nejsme schopni změřit neinvazivní metodou. [4, 9]
Tonometry dělíme na kontaktní a bezkontaktní, tedy dotýkající se oka a nedotýkající se oka, resp. oční rohovky. Metody kontaktní jsou aplanační, impresní a jiné. Metody bezkontaktní (bezkontaktní oční tonometry) využívají k měření rychlý proud vzduchu, jedná se o tzv. pneumotonometry. Měří se zde čas od vypuštění proudu vzduchu až do doby dosažení aplanace rohovky, jedná se o nepřímý způsob měření nitroočního tlaku. [1, 4]
Samotné měření nitroočního tlaku prochází neustálým vývojem, cílem je stanovení výše nitroočního tlaku v závislosti na mnoha okolnostech. Jedna vyšší naměřená hodnota nitroočního tlaku ještě neznamená glaukomové onemocnění, jedná se pouze o rizikový faktor, který je nutné vždy zohlednit a monitorovat i v budoucnu, při dalších vyšetřeních pacienta. Výši nitroočního tlaku lékař vždy hodnotí v korelaci s ostatními nálezy, resp. celkovým stavem pacienta. [1, 4]

4 PODMÍNKY MĚŘENÍ – KONSTRUKCE MĚŘICÍ APARATURY

Měřicí aparatura – přenosný etalon na kalibraci očních tonometrů se skládá z:

- kufříku s tlakovým pístem, včetně sady závaží (nastavení velikosti tlaku) a dalšího příslušenství,
- propojovací hadice,
- stojánku ve tvaru písmene „T“ s dvěma šrouby pro přesné uchycení modelu oka,
- výškově nastavitelného modelu oka s vyměnitelným materiálem pro simulaci oční rohovky, včetně doplňujícího příslušenství.



Obrázek 1: Přenosný etalon (model oka) na kalibraci očních tonometrů. [7]

Pro samotné měření platí podmínky určené danou laboratoří, v praxi ambulancí očního lékaře. Konstrukce měřicí aparatury je přenosná a neklade prakticky žádné požadavky pro realizaci daného měření. Pomocí závaží jsme schopni realizovat potřebný tlak v modelu oka, který porovnáváme s naměřenou hodnotou na očním tonometru, v našem případě na bezkontaktním očním tonometru (viz *Obrázek 1*). Měření je ovšem možné realizovat také na jiném přístroji určeném k měření nitroočního tlaku, např. na aplanačním tonometru. Výhodou našeho modelového oka je, že oproti lidskému oku máme „ideální“ zakřivení rohovky, stejnou tloušťku rohovky (dle použitého materiálu) a stejné „biomechanické“ vlastnosti rohovky.



Obrázek 2: Přenosný etalon na kalibraci očních tonometrů – měření na bezkontaktním tonometru značky NIDEK. [7]



Obrázek 3: Přenosný etalon na kalibraci očních tonometrů – měření na aplanačním (kontaktním) tonometru. [7]

5 NAMĚŘENÉ HODNOTY

Pro samotné naměření hodnot na očních tonometrech pracujeme s jednotkami 1 torr = 1 mm Hg ≈ 133,322 Pa. Torr je dnes již historickou jednotkou tlaku a nepatří do soustavy jednotek SI. Jeden torr je tlak, který odpovídá hydrostatickému tlaku vyvolanému jedním milimetrem rtuťového sloupce. Oční tonometry tedy udávají hodnoty v milimetrech rtuťového sloupce. Pro přepočet tlaku v naší měřící aparatuře, která nám indikuje tlak v modelu oka, pracujeme s jednotkou Pascal (Pa) a s jejími násobky (kPa). Kontrolu správnosti měřicího zařízení (očního tonometru) tedy přepočítáváme. Hodnoty získané pomocí měřící aparatury dále slouží k vyhodnocení měření, včetně stanovení nejistot měření. Finálním výstupem je kalibrační protokol (protokol o kalibraci očního tonometru), k jehož zpracování potřebujeme hodnoty kontrolovaného očního tonometru ověřit pomocí nově vytvořeného kalibračního etalonu. V následujících tabulkách (*Tabulka 1*, *Tabulka 2*) uvádíme prvotní výsledky z měření pro srovnání nastaveného s naměřeným. [2, 3]

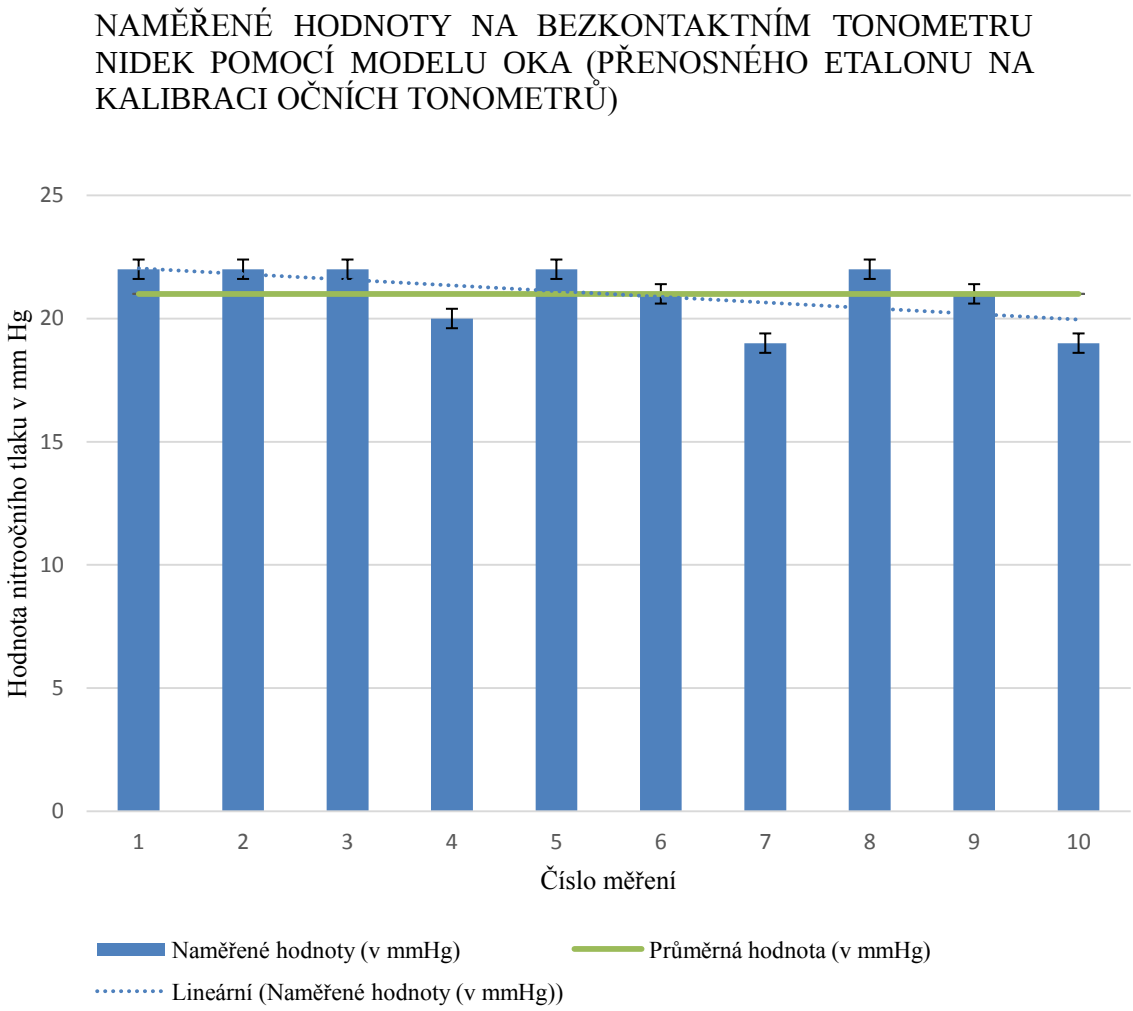
Prvotní měření proběhlo na Univerzitě Palackého v Olomouci, Přírodovědecké fakultě, Katedře optiky dne 15. září 2017. V podmínkách laboratoře pro výuku budoucích optometristů. Na přenosném etalonu jsme nastavili – uložili závaží o hodnotě 3 kPa, což po přepočtu na milimetry rtuťového sloupce odpovídá přibližně 22,5 mm Hg. Následně jsme na modelu oka realizovali 10 měření, jak pro bezkontaktní tonometr, tak i pro kontaktní (aplanační) tonometr. Zpracování naměřených hodnot do grafu prezentuje *Graf 1* a *Graf 2*.

Přepočet mezi přenosným etalonem na kalibraci očních tonometrů a hodnotou, kterou vykazují přístroje na měření nitroočního tlaku, tedy námi posuzované tonometry (v milimetrech rtuťového sloupce) je následující: 3 kPa = 3000 Pa, 3000 Pa/133,322 Pa = 22,502. Při zatížení na přenosném etalonu 3 kPa očekáváme tedy hodnotu 22,502 mm Hg. Obdobně přepočítáváme při vyšším nebo nižším zatížení. Pro ilustraci výpočtu například pro 5 kPa = 5000 Pa, 5000 Pa/133,322 Pa = 37,503. Při zatížení na přenosném etalonu 5 kPa očekáváme tedy hodnotu 37,503 mm Hg.

Tabulka 1: Naměření prvotních hodnot – komparace přenosného etalonu na kalibraci očních tonometrů s bezkontaktním tonometrem NIDEK. [2, 6]

Nastavená hodnota na přenosném etalonu	Naměřená hodnota (bezkontaktním tonometrem)	Průměrná hodnota nitroočního tlaku z naměřených hodnot
3 kPa ≈ 22,5 mm Hg	22 mm Hg	21 mm Hg
	22 mm Hg	
	22 mm Hg	
	20 mm Hg	
	22 mm Hg	
	21 mm Hg	
	19 mm Hg	
	22 mm Hg	
	21 mm Hg	
	19 mm Hg	

Graf 1: Zpracování prvotních hodnot do grafu (viz Tabulka 1):

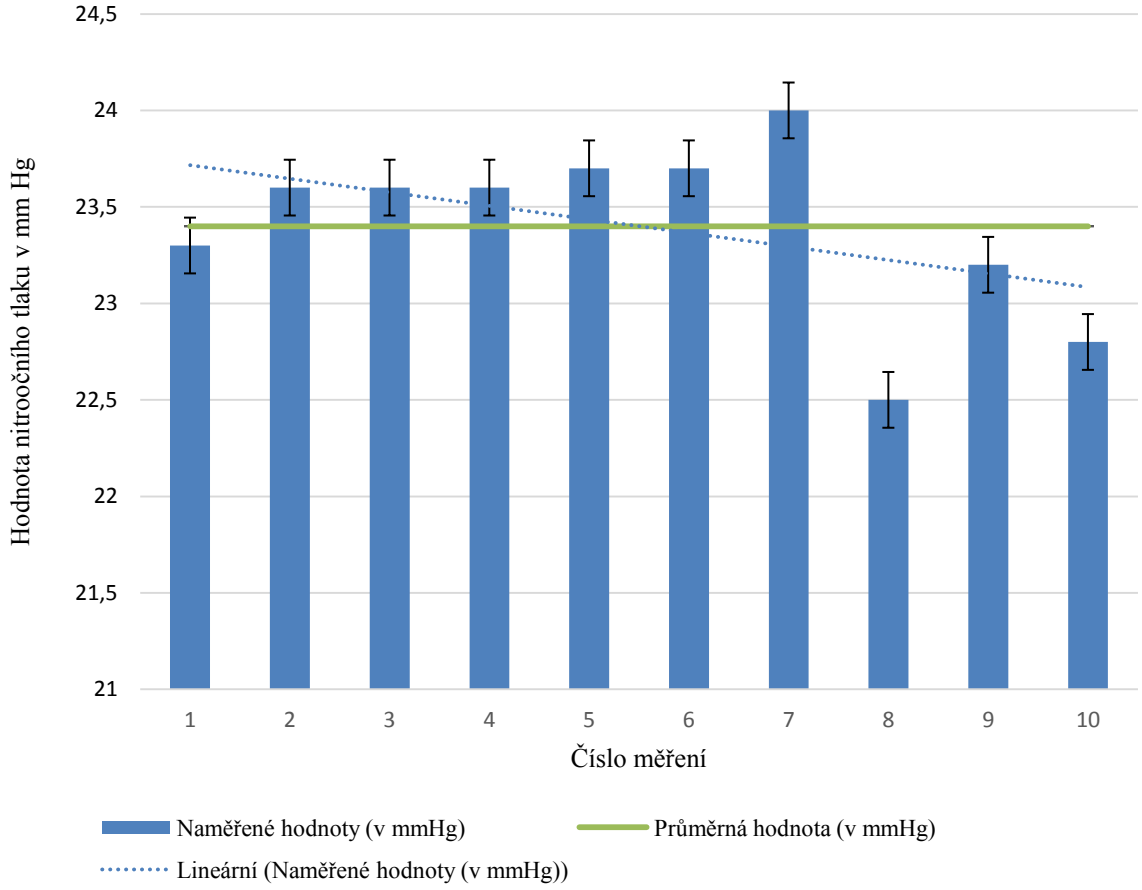


Tabulka 2: Naměření prvotních hodnot – komparace přenosného etalonu na kalibraci očních tonometrů s aplanačním tonometrem. [2, 6]

Nastavená hodnota na přenosném etalonu	Naměřená hodnota (aplanačním tonometrem)	Průměrná hodnota nitroočního tlaku z naměřených hodnot
3 kPa ≈ 22,5 mm Hg	23,3 mm Hg	23,4 mm Hg
	23,6 mm Hg	
	23,6 mm Hg	
	23,6 mm Hg	
	23,7 mm Hg	
	23,7 mm Hg	
	24 mm Hg	
	22,5 mm Hg	
	23,2 mm Hg	
	22,8 mm Hg	

Graf 2: Zpracování prvotních hodnot do grafu (viz Tabulka 2):

NAMĚŘENÉ HODNOTY NA APLANAČNÍM TONOMETRU POMOCÍ MODELU OKA (PŘENOSNÉHO ETALONU NA KALIBRACI OČNÍCH TONOMETRŮ)



Do kalibračního protokolu přístroje se uvádí statisticky zpracovaná hodnota – standardní nejistota určená metodou typu A, která je výsledkem realizovaných měření, včetně zdrojů standardních nejistot určených metodou typu B (vliv teploty, vlhkosti, neúplná stabilita tlaku, nevhodný postup při měření, vliv zaokrouhlování, chyba přístroje, subjektivní vliv obsluhy, nedodržení shodných podmínek při opakovaných měřeních, chyba manipulace, atd.), z nejistot určených metodou typu A a B se určí kombinovaná standardní nejistota. K samotnému výsledku potom přiřazujeme celkovou nejistotu s určeným pravděpodobnostním pokrytím skutečné hodnoty. [2]

ZÁVĚR

Cílem tohoto příspěvku bylo představit nový přenosný etalon na kalibraci očních tonometrů. V příspěvku byla představena jeho realizace – využití na bezkontaktním a na kontaktním (aplanačním) tonometru. Inovativní návrh měřicí aparatury poskytuje hodnoty pro metrologické zabezpečení očních tonometrů přímo na místě, kde se tonometr nachází. Následně lze z těchto hodnot dané měření vyhodnotit a určit měřicí správnost přístroje, včetně jeho nejistot měření, které tvoří součást kalibračního protokolu. Správná kalibrace pomocí přenosného etalonu nám u těchto tonometrů zabezpečí přesné stanovení nitroočního tlaku a napomůže k diagnostice případných glaukomových onemocnění, což je i cílem projektu Horizont H2020, díky kterému tento etalon vzniká.

Poděkování
Autoři příspěvku děkují Slovenské technické univerzitě, Strojnické fakultě, Ústavu automatizace, měření a aplikované informatiky a grantovým agenturám APVV projekty číslo APVV 15-0295, APVV 15-0164, VEGA projekty číslo 1/0604/15, 1/0748/15, KEGA projekty číslo 014STU-4/2015, 039STU-4/2017 za jejich podporu při psaní tohoto příspěvku. Dále děkujeme Univerzitě Palackého v Olomouci, Přírodovědecké fakultě, Katedře optiky za umožnění provést řadu zkušebních měření nitroočního tlaku pomocí realizovaného přenosného etalonu na kalibraci očních tonometrů.

Použitá literatura

1. HORNOVÁ, J. a BAXANT, A. Současné možnosti měření nitroočního tlaku. *Česká a slovenská oftalmologie* [online]., 175-180 [cit. 2017-11-11]. Dostupné z: http://www.prolekare.cz/ceska-slovenska-oftalmologie-clanek/soucasne-moznosti-mereni-nitroocniho-tlaku-47139?confirm_rules=1
2. CHUDÝ, V.; PALENČÁR, R.; KUREKOVÁ, E.; HALAJ, M. *Meranie technických veličín.* 1. vyd. Bratislava: STU v Bratislave, 1999. 688 s. ISBN 80-227-1275-2.
3. Jednotky – tlak (převody jednotek). [online]. © 2002-2017 jednotky.cz. [cit. 2017-09-12]. Dostupné z: https://www.jednotky.cz/tlak/torr/
4. KUCHYNKA, Pavel a kol. *Oční lékařství*. 2., přepracované a doplněné vydání. Praha: Grada Publishing, 2016. xx, 903 stran. ISBN 978-80-247-5079-8.
5. MAŠEK, Petr; CHOLEVÍK, Dalibor a NĚMČANSKÝ, Jan. *Oftalmologie a diagnostické metody a přístroje v oftalmologii: studijní opora*. Vyd. 1. Ostrava: Ostravská univerzita v Ostravě, 2014. 96 s. ISBN 978-80-7464-569-3.
6. Microsoft Excel. [.xlsx]. Tabulkový procesor, 2013.
7. RYBÁŘ, Jan: Vlastní fotografie. [obrázek JPEG]. Olomouc: Univerzita Palackého, Přírodovědecká fakulta, Katedra optiky, 2017.
8. ŘEHŮŘEK, J.; ŠPICAROVÁ, R. a VANČUROVÁ, J. *Fyziologické hodnoty nitroočního tlaku u dětí* [online]., 361-365 [cit. 2017-11-19]. Dostupné z: http://www.prolekare.cz/ceska-slovenska-oftalmologie-clanek/fyziologicke-hodnoty-nitroocnihotlaku-u-deti-27875
9. SYNEK, Svatopluk; SKORKOVSKÁ, Šárka. *Fyziologie oka a vidění*. 2., dopl. a přeprac. vyd. Praha: Grada, 2014, 96 s., xi s. obr. příl. ISBN 978-80-247-3992-2.

Kontaktní údaje

Mgr. Ing. Jan Rybář
Slovenská technická univerzita, Strojnická fakulta
Náměstí svobody 17, 812 31 Bratislava 1
Slovenská republika
Tel: +421 949 611 537
email: jan.rybar@stuba.sk

Ing. Miroslav Chytil
Slovenský metrologický ústav
oddělení průtoku a tlaku
Karloveská 63, 842 55 Bratislava 4
Slovenská republika
Tel: +421 902 245 733
email: chytil@smu.gov.sk

prof. Ing. Stanislav Ďuriš, PhD.
Slovenská technická univerzita, Strojnická fakulta
Náměstí svobody 17, 812 31 Bratislava 1, Slovenská republika
Tel: +421 905 241 179
email: stanislav.duris@stuba.sk

Ing. Simona Klvačová
Slovenská technická univerzita, Strojnická fakulta
Náměstí svobody 17, 812 31 Bratislava 1, Slovenská republika
Tel: +421 915 039 421
email: simona.klvacova@stuba.sk

Ing. Alexandra Javorská
Slovenská technická univerzita, Strojnická fakulta
Náměstí svobody 17, 812 31 Bratislava 1, Slovenská republika
Tel: +421 949 882 040
email: alexandra.javorska@stuba.sk

Ing. Milan Kubiš
Slovenská technická univerzita, Strojnická fakulta
Náměstí svobody 17, 812 31 Bratislava 1, Slovenská republika
Tel: +421 949 454 878
email: milan.kubis@stuba.sk

PRAKTICKÉ POUŽITÍ MOBILNÍ LABORATORNÍ DEPOLYMERIZAČNÍ JEDNOTKY V DAQING (ČÍNA) PRACOVNÍKY SPOLEČNOSTI ENRESS A VYSLEDKY TESTOVÁNÍ VE SPOLUPRÁCI S CHINA UNIVERSITY OF PETROLEUM, BEIJING

THE PRACTICAL USE OF THE MOBILE LABORATORY DEPLYMERIZATION UNIT IN DAQING (CHINA) BY WORKERS OF ENRESS COMPANY AND RESULT OFTESTING IN COOPERATION WITH CHINA UNIVERSITY OF PETROLEUM, BEIJING

Libor Baraňák, Miloslav Bačiak

Anotace

Tato studie představuje možnost praktického využití mobilní laboratorní depolymerizační jednotky společnosti ENRES s.r.o., která byla instalovaná v Čínské lidové republice na pozvání a ve spolupráci s China Univerzity of Petroleum v Pekingu a nadnárodními společnostmi CECEP a CNPC k řešení likvidace starých ekologických zátěží. Pozvaní specialisté společnosti ENRESS prováděli testy různých typů předložených vzorků materiálů zejména starých ekologických zátěží, např. ropné kaly (sludge), pneumatiky, odpadový PET, obaly od ropných látek, obsah skládek s obsahem PVC až 40 % atd., následně komentovali jednotlivé výsledky získaných analýz a formou přednášek a odborných prezentací představili možnosti a praktické využití vybraných depolymerizačních technologií čínským účastníkům.

Klíčová slova: *Depolymerizace, sludge, ENRESS*

Annotation

This study is about the practical use of the mobile laboratory depolymerization unit of ENRES s.r.o., which was installed in the People's Republic of China at the invitation and in cooperation with China University of Petroleum in Beijing and the multinational companies CECEP and CNPC to solve the disposal of old ecological burdens. Invited ENRESS specialists carried out tests of various types of samples of materials, especially old ecological burdens such as sludge, tires, waste PET, petroleum jelly, content of landfills containing up to 40% PVC, etc. With individual results obtained by this tests they presented the possibilities and practical use of selected depolymerization technologies to Chinese participants.

Key words: *Depolymerization, sludge, ENRESS*

1 MOBILNÍ LABORATORNÍ DEPOLYMERIZAČNÍ JEDNOTKA

V květnu 2017, po předchozí dohodě, navštívila naši laboratoř ENRESS v Dubenci u Příbrami čínská delegace, která se zajímala o tématiku termické depolymerizace. Byli jsme požádáni o vyslání našich odborníků, včetně laboratorní depolymerizační jednotky do města Daqing v severní Číně, kde jsme měly provést základní testy jednotlivých vzorků odpadů, které pro naši návštěvu připraví čínská strana.

Společnost ENRESS s.r.o se v rámci svého portfolia aktivně věnuje, mimo dalších priorit, čisté likvidaci odpadů, resp. termickému rozkladu odpadů a následného energetického využití produktů, které vzniknou při depolymerizaci. Pro základní a jednoduché zkoušky v Čína byla zkonstruována naše laboratorní depolymerizační jednotka s kapacitou 5 l objemu retorty, na

které byly demonstrovány všechny vyžádané rozklady jednotlivých vzorků odpadů. K ohřevu byla použita elektrická muflová vertikální pec LMV 05/12 do teploty 1200°C.
Následně byla zorganizován celý program návštěvy čínských partnerů a v srpnu 2017 odcestoval tým delegátů za účasti specialistů společnosti ENRESS vedoucího skupiny ing. Libora Baraňáka Ph.D. a chemika doc. RNDr. Miloslava Bačiaka Ph.D., kteří ve spolupráci s čínskými specialisty s China Energy Conservation and Environmental Protection Group (CECEP) a China National Petroleum Corporation (CNPC) z Pekingu prováděli praktické termické rozklady jednotlivých předložených vzorků odpadů na instalované laboratorní depolymerizační jednotce.



Obr. 1 - Čínští účastnící při prohlídce laboratorní jednotky



Obr. 2 - Sestava laboratorní jednotky v Číně

2 TESTOVANÉ MATERIÁLY A JEJICH VÝSLEDKY

Testované materiály

Po našem příjezdu do města Daqing jsme provedli instalaci a základní kontrolu naší depolymerizační jednotky. Tato byla na místo letecky přepravena zhruba tři týdny před naším příletem. Pracovníci CNPC nás následně seznámili s jednotlivými typy materiálů, které byly

na depolymerizační jednotce v následujících 10 dnech testovány. Čínští zástupci společnosti CECEP si v průběhu jednotlivých testů odebírali produkovaný procesní olej, pevný zbytek (pyrolýzní koks) a jímali do odběrových vaků procesní pyrolýzní plyn. Tyto vzorky byly následně podrobeny analýzám ve vlastních laboratořích CECEP. Výsledky provedených analýz jsou uvedeny v tab.1 2. Jednotlivé frakce a jejich bilance jsou popsány v tab.1 a 2.
Na testy byly připraveny tyto druhy materiálů:

- Ropné sludge s jílem (KAL)
- Obaly od ropných sludge (OBK)
- Drcené pneumatiky (PNE)
- Staré skládky s 40 % PVC (STPL)
- PET (PET)

Tab. 1 - Přehled testovaných vzorků

		粉碎轮胎	受污染的塑料和聚氯乙烯	石油污泥包装	石油污泥包装	受污染的塑料和聚氯乙烯	粉碎轮胎	油砂	油砂	油砂	宠物奶瓶	粉碎轮胎	油砂
Materiál	材料	Pneumatiky (PNE)	Plasty (STPL)	Obaly od kalu (OBK)	Obaly od kalu (OBK)	Plasty (STPL)	Pneumatiky	Ropné kaly (KAL)	Ropné kaly	Ropné kaly	PET	Pneumatiky	Ropné kaly
Olej	油	26%	38%	70%	70%	33%	31%	28%	18%	22%	73%	9%	33%
Plyn	气体	36%	18%	28%	28%	24%	25%	4%	7%	28%	27%	36%	11%
Uhlík a inert	碳/土	38%	44%	2%	2%	43%	44%	68%	75%	50%	0,1 %	55%	56%
Vsázka g	样品重量	2558 g	1000 g	920 g	960 g	920g	520 g	490 g	1150 g	1050 g	525g	680 g	620 g



Obr. 3 - Předložené vzorky odpadů v Číně

2.1 Testované materiály

Depolymerizace drtě z pneumatik je nejjednodušší a nejčastěji používaný typ termického rozkladu. Proto i pro první testovací vzorek byl použit tento materiál drtě ze starých pneumatik. Získané výstupy jsou znázorněny na obr. 4 a v tabulkách 2 a 3.



Obr. 4 - Výstupy z rozkladu vzorku drtě z pneumatik

Tab. 2 - Elementární rozklad pyrolýzních olejů

Naše Zn.	**No.**	**Sample**	**C**	**H**	**O**	**S**	**N**
			wt%	wt%	wt%	wt%	wt%
STPL	1	LJ-650-1 170806	85.27	11,12	1,61	0.94	0.70
OBK	2	YN-900-1 170807	85.57	14,5	0,9	0.06	0.07
OBK	3	YN2-900-1 170807	85.99	11,7	1,15	0.81	0.59
KAL	4	YN3-900-1 170808	85.72	13,26	0,87	0.23	0.18
KAL	5	YN4-1200-1	85.66	12,95	1,19	0.20	0.21

		170808					
KAL	6	YN5-1200-1 170809	85.40	13,83	0,98	0.11	0.10
PET	7	SL-1200-1 170810	85.69	13,9	1,04	0.11	0.10
KAL	8	YN6-1200-1 170811	85.60	10,68	1,56	0.67	0.49
PNE	9	XJ-1200-1 170811	85.44	11,41	2,38	0.53	0.50
STPL	10	FD-1 170807	85.41	14,3	0,8	0.06	0.07

Tab. 3 - Výhřevnost a spalné teplo pyrolýzního plynu z rozkladu drtě z pneumatik

Výhřevnost plynu	39,2MJ/m^3
Spal. teplo plynu	43,5 MJ/m^3

2.2 Obsah starých skládek s plasty a PVC 40%

Staré skládky jsou velkým problémem nejenom v Číně. Vzorek, který nám byl dodán k testování obsahoval velké množství degradovaného plastu a zeminy. Výstupy z daných testů jsou znázorněny na obr.5 a jejich popis uveden v tab.2.



Obr. 5 - Vstupy a výstupy obsahu staré skládky

2.3 Obaly od ropných odpadů a ropné kaly (oil sludge)

Nejdůležitějším a velmi očekávaným výsledkem pro čínskou stranu byly výsledky termického rozkladu vzorků obalů znečištěných ropnými kaly a samotný obsah ropných lagun, tj. s ropný kal s vysokým obsahem jílovité horniny. Tento materiál se ve velkém množství nachází v blízkém okolí města Daqing, hlavního města čínského ropného průmyslu. Důraz čínských zástupců byl dám především na čistotu pevného zbytku po depolymerizaci. Stanovený limit obsahu těkavých látek nesměl překročit hranici 0,1 % a tento limit se naším specialistům podařilo beze zbytku splnit nastavením ideálních důležitých procesních veličin. Výstupy jsou znázorněny na obr. 6 a 7 a v tab. 2 a 4.



Obr. 6 – Vzorky vstupu a výstupy rozkladu ropných odpadů



Obr. 7 - Vzorky vstupu a výstupy rozkladu obalů od ropných kalů

Tab. 4 – Výhřevnost procesního plynu z rozkladu ropných kalů s obsahem jílovité horniny

Výhřevnost plynu	16,92 MJ/m^3
Spal. teplo plynu	18,62 MJ/m^3

3 ZÁVĚR

Získané laboratorní výsledky výstupů z termického rozkladu jednotlivých předložených vzorků odpadů, které byly vyhodnoceny jak našimi odborníky, ale i zástupci China Univerzity of Petroleum jsou srovnatelné s výstupy, které jsou uváděny a popsány v odborné literatuře. Představená metoda termické depolymerizace na naší depolymerizační jednotce se jeví jako velmi vhodná k řešení problematiky likvidace ropných kalů s vysokým obsahem jílovité horniny a obalů od ropných kalů. Pro likvidaci obsahu starých skládek s přítomností PVC až 40 % byl našimi specialisty předložen návrh spolehlivého a bezpečného řešení této depolymerizace. Tento náš návrh, společně s ostatními je v současnosti hodnocen a konzultován ze strany zástupců čínských společností CECEP a CNPC.

Použitá literatura

1. J. SCHEIRS AND W. KAMINSKY.Feedstock Recycling and Pyrolys is of Waste Plastics: Converting Waste Plastics into Diesel and Other Fuels Edited by 2006 John Wiley & Sons, Ltd ISBN: 0-470-02152-7
2. RYBÍN, M.: Spalování paliv a hořlavých odpadů v ohništích průmyslových kotlů. Praha: SNTL, 1985.

Kontakt

Ing. Libor Baraňák Ph.D.
technický ředitel ENRESS s.r.o.
V zářezu 902/4,
158 00 Praha 5 - Jinonice
+ 420 604410358
e.mail: baranak@enress.eu

ORANGE PEEL WASTE AS A REINFORCING MATERIAL FOR PLASTICISED PVC

Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, Csaba Kónya, Gabriella Szemere

Abstract

Microparticles of orange peel waste have been added as a filler to plasticised PVC with different quantities (1,2,3) wt.% and measured the effect of these additives on the tensile strength of this polymer. The results of the Fourier transform infrared test (FTIR) showed that there are many effective groups in the structure orange peel microparticles that provide the best combination of the PVC and these particles. And according to the active groups found in orange peel, the tensile test results showed an improved tensile strength of plasticised PVC with 1 and 2 wt.% orange peel microparticles but decreased when the addition increased to 3 wt.%.

Keywords: *Orange peel, Plasticised PVC, Waste, Tensile strength, FTIR, Microparticles.*

Introduction

Agricultural waste is an accidental product of the production of food from various agricultural crops. Many of the supporters of these important economic materials tend to call them agricultural residues rather than agricultural residues. Agricultural residues vary in variety of agricultural crops and vary from one country to another according to the country's production of each agricultural crop [1-3]. These agricultural residues are considered renewable and environmentally friendly natural resources, which can be used in many fields for many benefits. Since ancient times and in many civilizations, these wastes have been used for many purposes that benefit the human society, so that these wastes have become a source of high value in the purpose used [4-6]. However, despite the many benefits of agricultural waste, it has caused serious environmental problems due to the lack of awareness of the value of these substances and the use of incorrect methods of disposal, and seek to find ways to reduce these problems to avoid the damage caused by them. One of the most important solutions proposed to reduce the damage caused by these agricultural wastes is to recycle them in order to reduce the impact of these wastes and their accumulation on the environment and to benefit from the production of useful products [7-9]. Recycling reduces waste disposal by landfill or burning, thus helping to reduce pollution and global warming. The process of recycling is very useful because it not only reduces the amount of household waste that is sent to landfills and incinerators but is also a means of sustainable development where we can help preserve the environment for future generations [10-12].

2. Methodology

2.1 Materials Used

PVC with 70% DOP supplied by BorsodChem Zrt., Hungary; and Orange peel as a waste material.

2.2. Sample Preparation

The first step was washing the orange peel and then drying it in a furnace at 50℃ for a period of 6 hours. Grind the dry orange peel to a fine powder with particle size (0.2 μm). Fine ground dry orange peel particles were added to the respectively. The batches were prepared

from PVC with. Four batches were prepared by using the laboratory two roll mill type Schwabenthan (Fig.1), with forming conditions shown in Table.1, and these batches included PVC with reinforcing fractions (1, 2, 3) wt% from orange peel particles In addition to pure PVC batch for comparison. Samples were prepared at first step as sheets with 0.4-0.6 mm in thickness and then fabricated to the proper tensile strength shapes by using hydraulic press at 300 and 20 bar pressure and temperature 175°C. Tensile strength samples are cast according to (ASTM D638 -14).



Fig.1: Laboratory two roll mill type Schwabenthan (BorsodChem)

Table.1: Condition of rolling process

Temperature	Time	Rolling speed	
170ºC	5 min	21 rpm, Front roller	24 rpm, Back roller

2.3. Testes

1. Fourier transform infrared spectroscopy (FTIR): this test was done by using Bruker Tensor 27 FTIR spectroscope shown in Fig.2, to make detection of active compounds in orange peel powder.

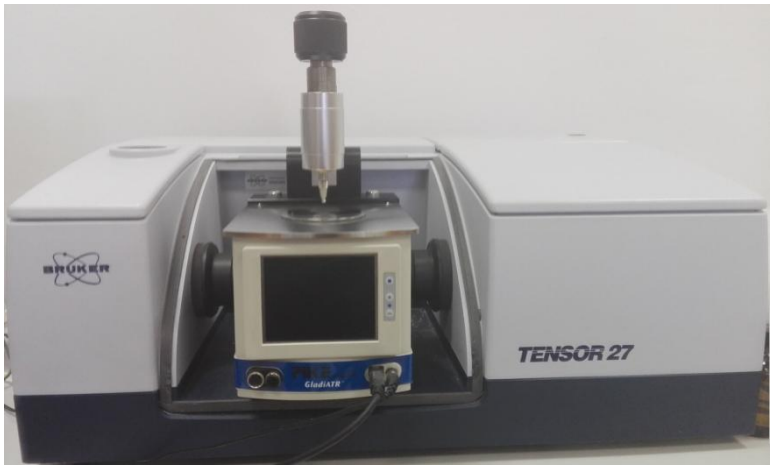


Fig.2: Bruker Tensor 27 FTIR spectroscope (Miskolc University)

2. Tensile Test: this test was carried out according to the ASTM D638 - 14 standard by using Instron 5560 instrument shown in Fig.3.



Fig.3: Instron 5560 instrument (Miskolc University)

3. Results and Discussions

3.1. Disclosure of Effective Groups in the Powder Plant

Fig.4 represents Fourier transform infrared spectroscopy (FTIR). From this figure we can see there are many active groups as illustrated in Table.2 which identifies the groups and numbers of wavelengths corresponding. Analysis of chemical conducted on the powder plant particles orange peel particles proved to fit on many of the groups active, orange peel consists of several chemical constituents like organic fats, pectins, lignin, reducing and non-reducing sugars all of which have many active functional groups (carboxyl, hydroxyl, aldehyde, etc.) The presence of bounds double and ties triple and aromatic rings in powder plant the new system will improve the act bonding with matrix.

3.2. Tensile Test

In Fig.5 shown the behavior of tensile strength for pure PVC without any addition and with added 1%, 2% and 3% from orange peel. It's clear from the Fig. the sample with 1% from orange peel it’s the better because it bear high deformation before fracture than other samples. The sample with 3% orange peels it less tensile strength compare with other samples. That mean the synthetic particles (1% orange peel) could impart reinforcement to the polymer matrix than other samples also the bonding between sample with 1% orange peel and polymer matrix strong (than in 2% and 3%). Also tensile strength in samples 1% and 2% orange peel high (high strength against fracture) than pure PVC because orange peel after analysis by FTIR showed it contain chemical bonding such as (-OH, CH2, CH3, Si-O-Si, C=C, and Si=H) these compounds contain bounds double and ties triple cause aromatic rings in matrix of PVC than pure PVC.

From all results of composite samples when increase content of orange peel particles decrease deformation and elongation at yield and at break in samples before fracture especially at 3%wt orange peel that’s means poor bonding at high percentage with matrix, because at

3%wt orange peel forming stress concentration points with matrix and this point decrease the strength of the samples also this due to low wettability between particles and PVC.

4. Conclusions

Samples that reinforced with microparticles of orange peel waste have high strength against fracture than samples of pure PVC, and the optimum percentage was 1 wt.%. Effective groups in orange peel structure provides the best combination between PVC and microparticles.

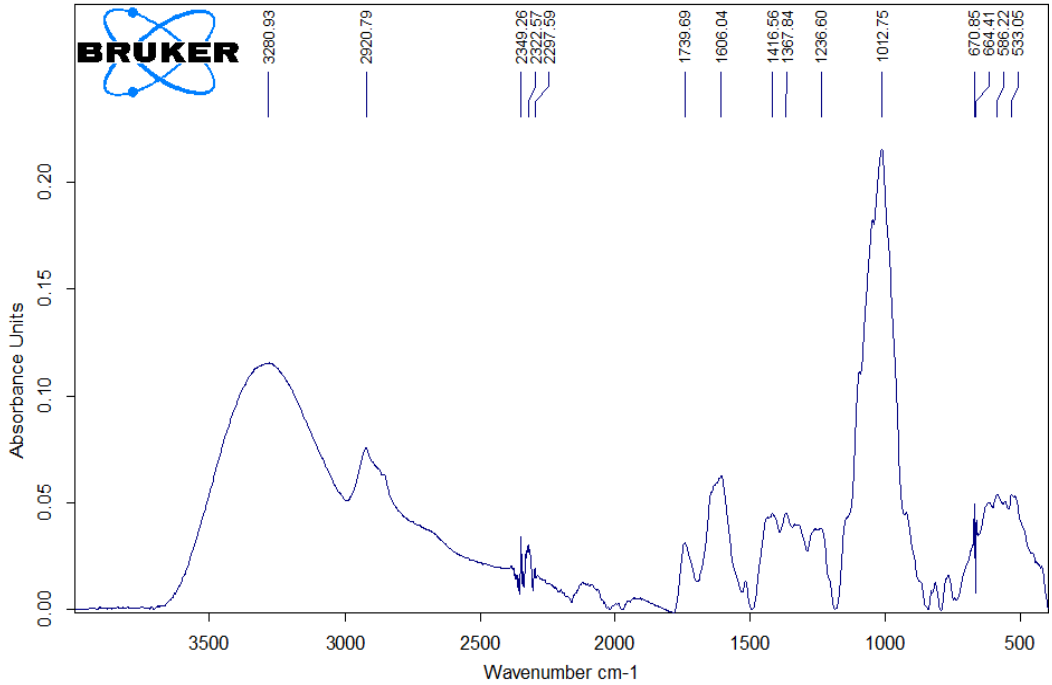


Fig. 4: Fourier transform infrared spectroscopy (FTIR) wavenumber vs. absorbance units for particles orange peels powder

Table 2: The active group and positive number

Positive Number	Active Group
(3280.93) cm^{-1}	OH
(2920.79) cm^{-1}	CH
(2349.26) cm^{-1}	P-H
(1739.69) cm^{-1}	C = O
(1606.04) cm^{-1}	C = C
(1416.56) cm^{-1}	$-CH_2$
(1367.84) cm^{-1}	$-CH_3$
(1236.60) cm^{-1}	CH-OH
(1012.75) cm^{-1}	C–O-H or C–O-R
(670.85) cm^{-1}	= CH
(664.41) cm^{-1}	C-Br
(586.22) cm^{-1}	O-N≡O
(533.05) cm^{-1}	S – S

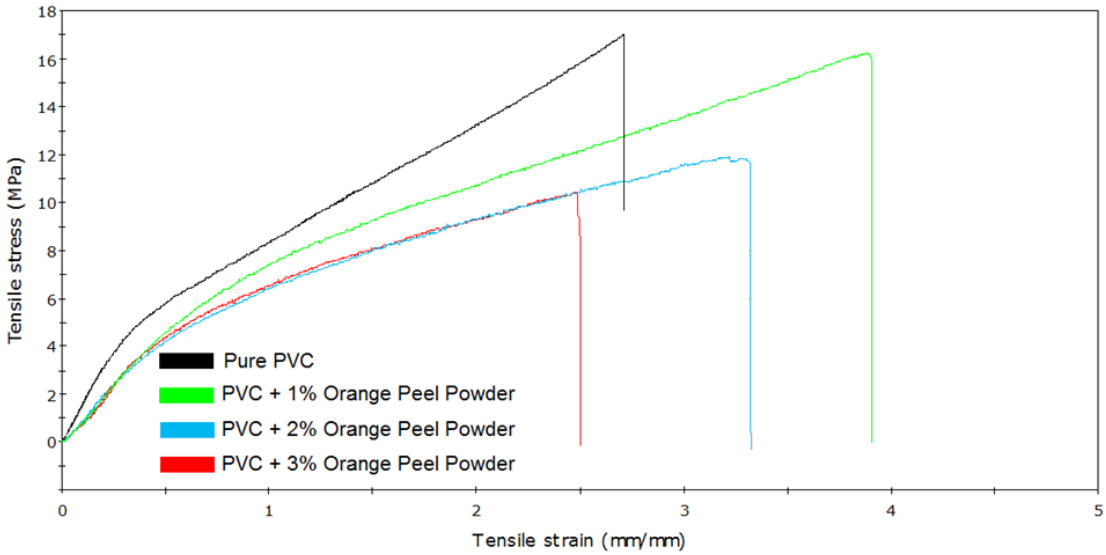


Fig.5 : Tensile strength of plasticised PVC befor and after orange peel additions

References

1. Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, and Abbass A. Hashim, Sustainable procedure for using waste of date seeds as a reinforcement material for polymeric composites, Proceedings of 8th CER Comparative European Research 2017 conference, London. UK, October 30-31, 2017, pp. 135-138.
2. J.M. Chard, G. Creech, D.A. Jesson, and P.A. Smith, Green composites: sustainability and mechanical performance, Plastics, Rubber and Composites, vol.42, issue.10, 2013, pp. 421-426. DOI: 10.1179/1743289812Y.0000000041.
3. K.G. Satyanarayana, Recent developments in green composites based on plant fibers preparation, structure property studies, Journal of Bioprocessing Biotechniques, vol.5, issue 2, 2015, pp.1-12. DOI: 10.4172/2155-9821.1000206.
4. Michael P. Shaver, The development of Green Materials, Green Materials, vol.5, issue GMAT4, 2013, pp.201-202. DOI: 10.1680/gmat.13.00011.
5. N. Saba, Mohammad Jawaid, M. T. H. Sultan, and Othman Y. Alothman, Green biocomposites for structural applications, Chapter 1 in M.Jawaid, Salit M., O. Alothman (eds) Green Biocomposites Design and Applications , Springer, Cham, 2017, pp. 1-27. DOI: 10.1007/978-3-319-49382-4_1. ISBN: 978-3-319-49381-7.
6. Ali I. Al-Mosawi, Mechanical properties of plants-synthetic hybrid fibers composites, Research Journal of Engineering Sciences, vol.1, no.3, 2012, pp.22-25.
7. Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, and Abbass A. Hashim, Mechanical properties of recycled bamboo fibers reinforced composite, European Journal of Advances in Engineering and Technology, vol.2, no.4, 2015, pp. 20-22.
8. Shaymaa Abbas Abdulsada and Ali I. Al-Mosawi, Manufacturing of a new composite material reinforced with natural reed fibers and used in engineering applications and contribute to the reduction of environmental pollution caused by burning. Central Organization for Standardization and Quality Control (COSQC), International Classification, Iraq patent no. 4314, 2015.
9. Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, and Mustafa A. Rijab, Recycling procedure of plant waste for manufacturing green composite material, International Journal of Engineering Technology, Management and Applied Sciences, vol.5, issue.4, 2017, pp. 211-214.

10. Ali I. Al-Mosawi and Shaymaa Abbas Abdulsada, Recycling of waste materials. 1st edn. Germany: LAP Lambert Academic Publishing, 2015. ISBN: 978-3-659-69530-8.
11. P. Alvarenga, P. Palma, C. Mourinha, M. Farto, J. Dôres, M. Patanita, C. Cunha-Queda, T. Natal-da-Luz, M. Renaud, and J.P. Sousa, Recycling organic wastes to agricultural land as a way to improve its quality: A field study to evaluate benefits and risks, Waste Management, vol.61, 2017, pp.592-582. DOI: 10.1016/j.wasman.2017.01.004.
12. Ali I. Al-Mosawi, Shaymaa Abbas Abdulsada, and Mustafa A. Rijab, Waste processing. 1st edn. Germany: LAP Lambert Academic Publishing, 2015. ISBN: 978-3-659-45126-3.

Contact

Ali I. Al-Mosawi
University of Miskolc
3515 Miskolc-Egyetemváros, Hungary

Shaymaa Abbas Abdulsada
University of Miskolc
3515 Miskolc-Egyetemváros, Hungary

Csaba Kónya
BorsodChem Zrt. Vinyl Technology
3700 Kazincbarcika, Bolyai tér 1, Hungary

Gabriella Szemere
BorsodChem Zrt. Vinyl Technology
3700 Kazincbarcika, Bolyai tér 1, Hungary

TECHNOLOGY INNOVATION TRANSFORMING POLICE SERVICES

Afërdita Qekaj-Thaqi, Leon Thaqi

Abstract

Technology, in a very real sense, is transforming policing in fundamental respects. New and emerging technologies are playing a crucial role in the daily work of frontline police officers, equipping them with enforcement and investigative tools that have the potential to make them better informed and more effective. For decades, technology, information technology as part of it, played a big function in facilitating police services all over the world on successful, fast and accurate job completion. Since technology is set to change positively in policing, there is range of modern devices that has become part of everyday police service duty. Modern technology innovations such as CAD, MDT, GIS, GPS, Biometrics, Body-worn Cameras, Surveillance Technologies, drones, Google Glass, tablets & smart phones, are among those which has revolutionized law enforcement agencies - police service, respectively.

Keywords: *technology, innovation, police, service, law-enforecement, communication*

1. INTRODUCTION

The effects of technology can be seen in almost all aspects of modern life; law enforcement agencies have no exception. The field of law enforcement has been altered by technology in many important ways. Historically, technology has revolutionized police practices. The introduction of the telegraph in the late nineteenth century and the utilization of two-way radio communication used for interventions as a rapid response to call for service, motor vehicles and computer-aided dispatching during the twentieth century, have made dramatic changes in the organization of the police work, and with them, new public expectations of police services. There is, therefore, every to expect that the latest round of technology change - the information technology revolution will have an equally dramatic impact on policing (Chan, Brereton, Legosz & Doran, 2001). Major advances in the history of policing and technology have taken place with respect to communication technology, ICT (Information and Communications Technology) respectively. Initially, from the late nineteenth century onwards, important advancements in communications technology began to be adopted by the police departments (Deflem, 2002). Additionally, more recent technological developments have also had far-reaching effects on police agencies. Information technology, DNA testing, and bullet-resistant vests just to mention few, for instance, are considered now common and critical tools in law enforcement agencies. Contemporary concerns over homeland security and counterterrorism have also created new technological problems and demands for police agencies, as has the growth of computer-related crime (Koper, Taylor & Kubu, 2009).

Ever since technology was introduced to police service, it assisted police effectives in completing their job more easily and effectively. By the introduction of technology, police officers were equipped initially with radio broadcasting messages which made significant improvements of their results. Throughout the years and decades police tasks have heavily relied on technology which is common today where technology has become "most faithful" partner offering overall support on problem solving and task accomplishment.

However, as former LAPD officer Raymond Foster claims that technology has enabled us to find new information and new ways in organizing information to help us solve and prevent crimes (Pittman, 2010).

The intention of this paper is to provide an overview of technology application into police services and its impact on enhancement of overall services provided from police.

2. TECHNOLOGY IN POLICING

A century ago, citizens relied on police walking the beat to keep their neighborhoods safe, often flagging down an officer when one was in need of help or running to the police station to report a crime. Detectives would be dispatched in a crime's aftermath, opening their notebook and using good old-fashioned shoe leather to crack open a case. However, that wait-and-respond method of policing is now a thing of the past, as modern-day methods have changed to an intelligence-led policy embracing lightning-fast, "smart" technology that seeks to predict and prevent crime before it takes place (Friedman, 2010).

In terms of technology, police agents were traditionally outfitted only with truncheon or baton and a rattle for raising alarm (Johnson, 1981; Manwaring-White 1983, at Deflem, 2002). These police were mostly on their own upon leaving the police station since the technology at that time did not allow communication between officers patrolling their beats and their command structure (Johnson, 1981, at Deflem, 2002). Due to the lack of communication technology, they were unable to coordinate officers on patrol and keep account of the officers' actions while on streets (Deflem, 2002).

Nevertheless, law enforcement agencies including police services were not immune on resisting impact and penetration of technology on their routine tasks ever since technology was introduced with its applicable useful features. Aiming to complete their job successfully, police officials, similar to other security and law enforcement agencies, have sought for contemporary technology innovations attempting to advance services and efficiency. In the beginning of last century, by the 1900s, there were some developments taking place which police service departments used on improving and enhancing their job. Therefore, amidst invention was fingerprinting which made a revolution back at the times so did erection of crime laboratories in the 1920s. Both those aforementioned techniques breed new era in policing by having big impact and profoundly increasing the police capacity for crime solving. Right after, the introduction of the two-way radio and the widespread use of the automobile in the 1930s multiplied police productivity in responding to incidents . Radiography invention seemed to have a lot of potential for police services. Though, in 1923, the London Metropolitan Police Service began to use a two-way radiography system. Two vehicles were equipped with transmitters and receivers. In 1928, the Detroit Police Department began operating a one-way system for its police cars. In 1929, the Chicago Police installed one-way radio transmitters in five squad cars. Broadcasts were originally made over radio station WGN (owned by the Chicago Tribune) and in the following year, the Department installed its own broadcasting system. In 1930, the Winnipeg Police Service became the first Canadian agency to install radios in its vehicles. The transmissions were one way and officers confirmed the messages by responding directly or using call boxes. By mid-1930 many more police radio systems were installed. In 1940 the Connecticut state police in Hartford began to use a very large-scale of integrated circuit chips in the early 1970s and microprocessors in the mid-1970. The microprocessor allowed digital communication in land mobile radio systems which opened the door for mobile data terminals. Today, there are multitudes of options available for law enforcement as wireless voice communication (Chu, 2001).

Law enforcement’s use of computers and generally information technology has expanded substantially over the past two decades. Given the increasing power and diminishing costs of technology, the extensive growth in mobile communications infrastructure and the expansion

of innovative applications available, computer usage continues to increase in law enforcement agencies throughout the United States (Roberts, 2011). By the beginning of the 21st century, surge of technology seems to be endless. Every newly invented gadget most probably should be suited for police practices as it was some years ago with the case of advances with portable or laptop computer hardware and parallel expansion of cellular telephone service which have resulted in an obvious pairing. A laptop can be equipped with a PCMIA cellular modem and data connection can be established over the phone network (Chu, 2001).



Figure 1. Dell laptop computer mounted in a New York State Patrol Service

Sources: Law Enforcement Information Technology, Chu (2001)

In recent years many agencies equip their officers with mobile computers or mobile computer terminals (collectively referred to as in-field computers) that afford direct access to many data systems from the field. The percentage of police agencies using in-field computers increased from around 5% in 1990 to roughly 55% in 2003; by the latter date, they were used by more than 90% of municipal and county agencies serving a population of 50,000 or more (Hickman and Reaves, 2006a: 32 at Koper, Taylor & Kubu, 2009). In-field computers include a variety of vehicle mounted and portable computers and terminals (e.g., laptops, digital data terminals, digital data computers, and personal digital assistants). In-field computers are often used to access information about vehicle and driving records, warrants, and criminal histories, among other items. In addition, between 27% and 33% of all agencies used in-field computers for writing field reports as of 2003 (Hickman and Reaves, 2006 at Koper, Taylor & Kubu, 2009).

3. HOW TECHNOLOGICAL ADVANCES ARE CHANGING POLICE WORK

Historically, the developments of police and technology have been largely influenced by the changing conditions that the new technologies created driving towards adopting standards of efficiency in policing. Technology advancement facilitated development of police which led becoming superior professionals and loyal to its citizens (Jonson, 1981 at Deflem, 2002). Technology is also changing the structure and operation of law enforcement agencies, enabling administrators to manage more efficiently, deploy resources, monitor crime trends with greater precision, and target intervention and investigative assets with greater effectiveness. Technology is facilitating closer and more collaborative relationships between

law enforcement and the community. The explosive growth and technological sophistication of smart phones and the surging popularity of social networking sites have empowered the general public and raised expectations regarding the transparency of the law enforcement organization, the services provided, and the public's ability to communicate with the police (Roberts, 2011).

A study done by Chan, Brereton, Legosz and Doran (2001) on Queensland Police Service (QPS) shows that by the late 1990s information technology has become well accepted and widely used by police in QPS. While 80% of interviewed police officers said they are using CRISP (Crime Reporting Information System for Police) every day or at least several times a week; which, according to QPS officers, use of technology has made a great positive difference in police's daily work. In spite of many complaints for various technical problems, QPS officers' assessment of the impact of technology on their own work was generally favorable given the fact that information technology had allowed them to work more effectively, making their work easier and helped them cope with the amount of information police needed to do their work properly.

Between using new crime-mapping software, reaching out to the community through social media and setting up sophisticated equipment that can shave hours off dated methods of investigating crime, according to Friedman (2010) who conducted a research at Greenwich police, she states that they are committed to adapting to changing times by using updated technology in order to ensure the community is kept safe. Police now have machines and cameras that can scan and process crime scenes in mere seconds and software that can locate connections between a victim and a suspect with the click of a mouse. Also, there is a gadget for license plate readers, or "LPRs," that can accurately scan up to 3,600 license plates per minute, instantly comparing them with law enforcement databases nationwide. Those are only few technology advances that are changing police work and are assisting on job completion that allow police officers and effectives doing the best (Friedman, 2010).

According to Mathew Scheider, he states that technology can be leveraged in specific ways to enhance the implementation of the community policing philosophy. Technology can increase the effectiveness of problem-solving and partnership initiatives and assist in the implementation of organizational changes designed to institutionalize these processes. Moreover, Scheider points out those three major roles of technology in community policing, which based on his description are as followings:

- Problem Solving: can be information-intensive and often requires access to both traditional data (offender information, incident reports, calls for service) and nontraditional data (physical characteristics of locations, property owners/managers, increased victim information) that can allow for the improvement of identification and analysis of problems.
- Partnerships: Technology can also facilitate partnerships through increased police communication with the public. Community policing encourages agencies to develop two-way communication systems that can be enhanced through such means as online reporting systems and interactive applications (surveys, maps), reverse 911, e-mail alerts, and discussion forums, thereby facilitating ongoing dialog and increased transparency.
- -Organization Transformation: Technology can enhance organizational support for community policing by improving internal communication systems through electronic memos, reports, newsletters, and e-mail. It can also improve incident reporting through electronic reports, resulting in greater accuracy and increased efficiency that can feed problem-solving and crime analysis efforts. Additionally, technology can also

improve dispatch and reduce response times, resulting in greater time to engage in proactive efforts (Scheider, 2008).

4. MODERN TECHNOLOGIES FOR LAW ENFORCEMENT AGENCIES

Due to huge impact of information technology on the law enforcement, police services more accurately, I will go through pointing out some of the systems applied in police services which revolutionized work of police services.

CAD - Computer Aided Dispatch systems are now commonly used by many police departments. CAD systems prioritize calls-for-service received by the communications center, "stacking" less urgent calls so that police officers can respond to those calls requiring more immediate attention. When a call is prioritized by the CAD system, it can be broadcasted to an officer in a patrol car through either the radio or a computer. CAD makes it easier for human call-takers and dispatchers to remain abreast of what calls are being answered, where officers are located, and how long they have been out on a call. CAD systems are also useful for collecting and storing data. Once a call is received at the communications center, it is categorized by the CAD system. Depending on the agency's information storage capacity, the data are then integrated into the information system for some period of time, after which they are archived for long-term storage (Maguire & Archbold, 2002).

MDT (Mobile Digital Terminals) - many police agencies in US have installed this appliance in their car patrols and it allows officers to receive "Silent Dispatch" over the computer, checks vehicle registration, and driver license. After that, officer can enter report while in field, send e-mail if necessary and retrieve information needed from any database that are connected between agencies at local, state or federal levels (Maguire & Archbold, 2002).

GIS (Geographic Information System) - is utilized for many purposes, it is high performance computer software that allows users to process geographically related data. This data may be topography, political boundaries, population density, call for services, crimes and many other data which can be stored as information in virtual layers to be displayed on the computer in the form of multilayer virtual map. Additionally, GIS is used in crime mapping, the layer sit atop one another resulting in an overall picture of crime and its spatial contexts. As a system used for analyses, it is very useful due to statistical capabilities attempting even prediction an offender’s next target or areas where offenders might live. GIS offers Hot Spot dots showing distribution of crime across particular areas which ease police officers analyzing areas where crime may occur (Paynich & Hill, 2010).

GPS (Global Positioning System) - technology makes police be able to pinpoint the location of a call and determine the fastest and safest route to it, getting people the help they need more efficiently and timely. Officers can record the location of their traffic stops and crash investigations, and that information can be exported to maps to determine how enforcement efforts can be better focused to decrease the occurrences of traffic crashes. GPS technology can also be used by crime analysts to help identify emerging trends in crime locations and help better plan for shift staffing and patrol assignments. It increased accountability for officers, allowing management and supervisory personnel to track locations and speeds of officers (Roufa, 2014).

Besides, modern technology that currently is utilized which in a sense proved to be needed to police are also.

Biometrics (portable biometric system for police officers): recent technology advancement, smart technology more precisely, has given possibility to police officers new low-cost portable biometric tool in their hands for quick and accurate identification of a person or

suspect. This application can be installed in a smartphone. Officers can use it to scan a suspect's fingerprint or snap a photo of their face to scan iris, while app thereafter makes an automatic search thru multiple database seeking for possible matches. The app now is provided as a portable scanner which is plugged into the back of iPhone using phone camera which automatically snaps a picture of a person or a suspect. The device is designed to aid police officers identify individuals who may not have ID or may be using fake credentials. Law enforcement officials can now get results in real-time rather than having to call in license plate numbers or rely solely on ID cards (Homeland Security News Wire, 2011).



Figure 2. Identification of a person from police officer with portable biometric tool.

Source: Homeland Security News Wire: Law-enforcement technology- Portable biometric system for police officers

Body-worn Cameras (BWC): Body-worn cameras are an effective law enforcement tools that can reduce violent confrontations and complaints against officers. Body-worn cameras provide additional documentation of police-public encounters and may be an important tool for collecting evidence and maintaining public trust.

B. This policy is intended to provide officers with instructions on when and how to use body-worn cameras.

C. The department has adopted the use of body-worn cameras to accomplish several objectives, including: 1. Body-worn cameras allow for accurate documentation of police-public contacts, arrests, and critical incidents. They also serve to enhance the accuracy of officer reports and testimony.

2. Audio and video recordings enhance the Department's ability to review probable cause for arrest, officer and suspect interaction, evidence for investigative and prosecutorial purposes and to provide additional information for officer evaluation and training.

3. Body-worn cameras may also be useful in documenting crime and accident sensor and other events that include the confiscation and documentation of evidence or contraband .

Surveillance Technologies: Law enforcement agencies - police services, are using contemporary technology advancements for safety and security of entire nation. Even some may argue against the use of surveillance technology, police officers have been able to gather essential information from surveillance gadgets. Many of captured suspects, criminals and other wrongdoers have been seized thanks to surveillance technology. Surveillance watches spaces, people and their activities, and it is more focused catching for unlawful activities prior it may cause a big damage community or even broad range of society. Hence, surging

technologies will surely can assist law enforcement officers at surveillance efforts aiming to keep peace among citizens preventing them from any indented harm doer. Surveillance technology itself, can serve a valuable function in helping to safeguard the public from potential danger (LandAirSea, 2013).

As consumer products continue to evolve, early adopters are helping to shape law enforcement communications technology landscape by making known their desires and seeing manufacturers incorporate officer preferences into their equipment. Many law enforcement officers accustomed to using up to date technology tools and devices. Smart phones, for instance, devices used in their personal lives are itching to use the same type of technology while on duty. Accordingly, technology manufacturers are working on meeting that challenge offering as headsets, microphones and wireless devices. Among recently used devices on law enforcement agencies are Bluetooth, Hearing Protection, and Smart phones.

Bluetooth - technology is found in most smart phones and also it is employed as radio wave to communicate with other devices over short distances without any wire. With some additional modification required to meet criteria for law enforcement utilization, producer Motorola is providing different types of communications with SI-500 device, which is a hybrid between a speaker microphone and body-worn camera. It uses Bluetooth and smart interface to act as a hub for communications. Bluetooth is also used to support sensors on the device for biometric, an accelerometer and use the data to automate cameras recording with certain triggers.

Hearing protection - Another major trend in law enforcement communications is integrated hearing protection. There are many more options that incorporate hearing protection and noise cancelation technology into standard communications equipment to meet officers' needs due to the increased number of people becoming aware of the danger of hearing losses by being exposed to loud noises during shooting exercises and on duty causing serious irreparable damages. System allows volume to be set for external microphones to user's own preference from high volume even down to zero. As an example, SWAT teams expect that hearing protection be a part of their communications systems. SWAT officers can hear ambient noise even with ear buds, but new system allows to work with microphone technology that produces clear communication that are loud enough to be heard over any ambient noise.

Talking about modern technologies and its evolvement in law enforcement, a research conducted from Ann Marie Bush at Topeka Police Department, Kansas, USA, portrays cutting-edge technology application and advancement concerning about police performance. Harley Davidson motorcycles driven by Topeka officers certainly has two tires like the motorcycles that officers first rode in 1909, but today's Harley is loaded with more technology - from LED lights to an upgraded radio system, Bush says. Besides, patrol officers riding Harley are also outfitted with a Head-mounted camera, bulletproof vest and a Teaser attached to his hip. Those gadgets fitted to police officers show that technology is ever-changing in law enforcement. Nonetheless, an interview conducted with Ron Miller, Topeka Police Chief he points out that "There is always going to be technology advancement in law enforcement." He, Miller, also states that:

Technology will continue to evolve, and it will continue to aid law enforcement officers, just like the 1932 police radio system that was installed in Topeka. At the time, it was only the 98th police radio system in the United States and cost about $7,500, but just several months after radio system was installed in 1933 based on article in The Topeka Daily Capital -said the new radio system lead to a sharp reduction in crimes, so every penny invested in it was worth.

Nowadays, advancements in camera technology can help keep costs down. For example, an in-car video camera can cost as much as $5,000, whereas body-worn cameras are about $1,200 per unit. So, body-worn video will probably replace in-car video at some point. The Topeka Police Department has issued close to 30 head-mounted cameras to patrol officers, officers riding motorcycles and bicycles, and violent crime unit officers. In 2013 officers begin trial using license plate readers, another appropriate useful tool for our department.

On the other hand, information technology has an solid impact on the Topeka Police Department since using social media, such as Facebook and Twitter, enabled us reaching out the community. Computer and internet, meanwhile, have had a big effect on law enforcement, too. It, information technology, bonded our department with community thru our public computer which we have in our lobby, so people can file police reports, or in case they feel more conformable can fill any comment or complained online elsewhere on department's website (Bush, 2013).

As shown above, using technology in police departments it's so obvious that it leads to positive changes on overall police officers performance. Contemporary information technology evidently assists and abruptly enables officers having immense effect on the law enforcing correctly despite encountering miscellaneous challenges every single day.

5. TECHNOLOGY OF TODAY'S AND OF A FUTURE ON POLICE PRACTICES

Some of the current technology appliances or tools surely will survive even in the future practices of law enforcement agencies. Even I may not be a precise forecaster or fortuneteller, I am pretty convicted that some contemporary gadgets have a long live in front, as it concerns its utilization on enforcement of law. Given that some of the tools are just in the beginning or in trial test, those tools has been proven to be future appropriate assistants of police and military services. Tools which I think that will ace on the future are as following:

Drones: Unmanned aerial vehicles, better known as UAVs or drones, are beginning to be embraced by local law enforcement agencies across the United States. Drones could revolutionize police work. Helicopters are expensive to fuel and maintain, and flying them takes specialized piloting skills. Because they’re in relatively short supply, using a helicopter often requires interdepartmental coordination, in the case of manhunt or chase of suspects. By comparison, drones are easy. They cost about 100 times less than a helicopter, and operating a drone costs significantly less per hour. Besides, drones can help patrol in many ways and areas that police officers simply cannot. They can provide real-time information to police dispatchers and to crime analysts so that officers can get vital information about crimes in progress and dangerous situations, as they unfold. This can help them better plan responses and save lives. In addition, drones can capture video and images of crimes as they occur, providing crucial evidence in future court proceedings (Richman, 2012).

Google Glass: According to Mathew Sparks, The New York City Police Department is testing Google Glass to see if wearable computers could be useful in law enforcement. Glass has a built-in camera that can record video and could potentially be useful in gathering evidence. It is also capable of running apps such as NameTag, which entered beta testing that can photograph a person and identify them by scouring social networks for a match. If the device was widely adopted by police it could be set up with an app that allowed officers to search databases of known offenders and outstanding warrants in a similar way. The use of video recording and dictation could also help cops avoid long desk time typing out incident reports. If it turns out that the device is indispensable as a crime fighting tool (Sparkes, 2014).

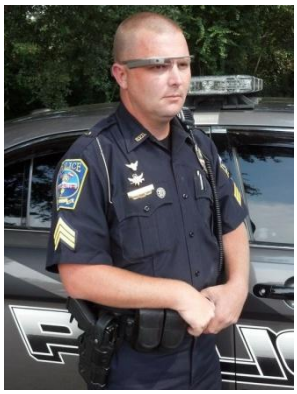


Figure 3. Officer wearing Google Glass (Photo: Coptrax)

Source: USA Today: Police departments have their eye on Google Glass

Social Media: Law enforcement professionals throughout the US are increasingly leveraging social media to assist in crime prevention and investigative activities, according to a new study released by LexisNexis Risk Solutions. se of social media by law enforcement grew in 2014 and the upward trend is likely to continue. Over three-quarters of respondents indicate plans to use social media even more in the next year. Moreover, the value of social media in helping solve crimes more quickly and assisting in crime anticipation is increasing. 67 percent of respondents believe that social media is a valuable tool for anticipating a crime. Law enforcement officials cited a number of real-world examples in which social media helped thwart impending crime, from stopping an active shooter to tracking gang behavior. Although social media use among law enforcement personnel is high and is likely to continue to grow, few agencies have adopted formal training in the use of social media to boost law enforcement efforts. In fact, there has been a decrease in formal training since the 2012 study, with most law enforcement personnel indicating that they are self-taught (Vicinanzo,2014).

Tablets and Smartphone's: Majority of people in today possesses any of new technology such are smart phone or tablet. Based on this fact, law enforcement agencies has no other alternative besides switching to those technologies and start thinking the way should be fitted to every day operations to its officers or personnel as NYPD did lately. Recent forward firm leap taken from NYPD is equipping all of its officers with smart phones and out fitting many officer cars with tablet computer attempting to modernize nation's largest police force. Devices will hold several applications as mobile version of the Domain Awareness System a computer surveillance system that joins video feeds from thousands of closed-circuit cameras to law enforcement databases enabling them to track and gather information about criminals and possible terrorists. Anticipation from those systems in the future are fairly big having in mind capabilities those devices have to assist officers on effective duty completion (Schlossberg, 2014).

6. CONCLUSION

Use of technology from police service is considered to be among most import and valuable factors strengthening police operations. Given the importance of technology and its every day advancements, utilization has made policing having great potential coping and handling over many obstacles while on duty. For many years, it is proved that technology firmly assisted and mitigated policing on fulfilling their mission, thus, in many countries around the globe crime has decreased as a consequence. Even though work of a police officer's is always challenging, by relying on technology advancements which will be used on the future from law enforcement agencies, hopes for a better and safer world with lesser crimes are optimistic.

Sources

1. Chu, J. (2001). " Law Enforcement Information Technology: A Managerial, Operational, and Practical Guide." CRC Press LLC. FL, USA.
2. Chan, J., Brereton, D., Legosz, M. & Doran, S. (2001) "E-policing: The Impact of Information Technology on Police Practices." Criminal Justice Commission, Brisbane, Queensland, Australia.
3. Pittman, E. (2010). "Real-Life Police Technology Catches up With Science Fiction" Retrieved February, 2016 available at: http://www.govtech.com/public-safety/Real-Life-Police-Technology-Catches-up-With.html?page=1
4. Bush, M.A. (2013). "Technology continues to evolve in law enforcement." Retrieved January, 2016, available at: http://cjonline.com/news/2013-07-04/technology-continues-evolve-law-enforcement
5. Deflem, M. (2002). "Policing World Society" Oxford University Press. England. UK.
6. Scheider, M. (2008). "The Role of Technology in Community Policing" Retreived, January, 2016, available at: http://www.cops.usdoj.gov/html/dispatch/November_2008/nugget.htm
7. Paynich, R. & Hill, B. (2010). "Fundamentals of Crime Mapping" Jones and Bartlett PublishersLLC, London,UK.
8. Roufa, T (2014). "Technologies That Are Changing the Way Police Do Business" Retrieved February, 2016, available at: http://criminologycareers.about.com/od/Career_Trends/a/Technologies-That-Are-Changing-the-Way-Police-Do-Business.htm
9. Richman, E. (2012) "Drones: The Future of the Law Enforcement?" Retrieved January , 2016, available at: http://www.emergencymgmt.com/safety/Drones-The-Future-Law-Enforcement.html
10. Sparkes, M. (2014) " New York police testing Google Glass" The Telegraph. Retrieved, February, 2016, available at: http://www.telegraph.co.uk/technology/google/10623753/New-York-police-testing-Google-Glass.html
11. Vicinanzo, A. (2014). " DHS Law Enforcement Increasingly Reliant on Social Media" Homeland Security. Retrieved, February 2016, available at: http://www.hstoday.us/channels/dhs/single-article-page/law-enforcement-increasingly-reliant-on-social-media/81320b8e269fa3f6f1530edd7b2312ff.html
12. Schlossberg, T. (2014). "New York City Police to Be Equipped With Smartphones and Tablets" The New York Times. Retrieved March 2016, available at: http://www.nytimes.com/2014/10/24/nyregion/new-york-city-police-to-be-equipped-with-smartphones-and-tablets.html?_r=0
13. Koper, S.Ch., Taylor, G.B. & Kubu, E.B. (2009). "Law Enforcement Technology Needs Assessment: Future Technologies to Address the Operational Needs of Law Enforcement" Police Executive Research Forum 1120 Connecticut Ave., N.W., Suite 930, Washington, D.C, USA.
14. Friedman, S. (2010). " TECH COPS: How technological advances are changing police work" Retrieved March 2016, available at: http://www.greenwichtime.com/local/article/TECH-COPS-How-technological-advances-are-648003.php
15. 13. Basich, M. (2016). "Next-Generation Headsets and Mics" Police Technology Community for Cops. Retrieved March 2016, available at: http://www.policemag.com/channel/technology/articles/2016/03/next-generation-headsets-and-mics.aspx

16. Law Enforcement Technology. "Portable biometric system for police officers" Homeland Security News Wire. Retrieved, February, 2016, available at: http://www.homelandsecuritynewswire.com/portable-biometric-system-police-officers
17. LandAirSea. "Law Enforcement and Surveillance Technology" LandAirSea. Retrieved February, 2016, available at: https://www.landairsea.com/gps-tracking-news/law-enforcement-and-surveillance-technology
18. Koper, S.Christopher., Taylor, G. B. & Kubu, E. B. (2009). " Law Enforcement Technology Needs Assessment: Future Technologies to Address the Operational Needs of Law Enforcement" Police Executive Research Forum. Lockheed Martin Corporation. Washington, D.C. US.
19. Maguire, R.E. & Archbold, C. (2002). " Police: Organization and Management" The Gale Group Inc. MI.US.
20. Roberts, J.D. (2011). "Technology Is Playing an Expanding Role in Policing" The Police Chief-The professional Voice fo Law Enforcement. Retrieved March, 2016, available at: http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=2295&issue_id=120
21. Carte, B. (2014) "Police departments have their eye on Google Glass" USA Today. Retrieved February 2016, available at: https://www.usatoday.com/story/tech/2014/02/12/us-police-consider-google-glass/5341597/

Contact
Dr.sc. Afërdita Qekaj-Thaqi
Lecturer at the Kosovo Academy for Public Safety,
Faculty of Public Safety, Kosovo Police
Luan Haradinaj, Prishtina, Kosovo
Tel: +38649159100
email: aferdita06@gmail.com; aferdita.qekaj-thaqi@kosovopolice.com

Contact
Msc. Leon Thaqi
City College- University of Sheffield, Thessaloniki, Greece
Ulpiana E-30, H-1, Nr.2, Prishtina, Kosovo
Tel: +37744115173
email: leeonthaqi60@gmail.com; lethaqi@citycollege.sheffield.eu

THEMATIC DOMAIN | X.

INFORMATIKA A INFORMAČNÍ TECHNOLOGIE

INFORMATICS AND INFORMATION TECHNOLOGY

NUMBER OF PAPERS: 10



DATA FLOW CONTROLLER

Said Krayem, Ivo Lazar, Pavel Kovařík Mohammad Kadi, Awwama Emad, Mohamad Alarsan

Abstract

Our goal devloping formal model for controlling data flow using abstract record and stack data type. A case study would be a large company having many verious branches distributed over the world.

Key words: *Formal methods, Event-B method, Abstract data structure (ABT), prooving model*

1 INTRODUCTION

For modelling the system, we have choosed the Event B method. The event B method [ABR 98, ABR 03a] reuses the set-theoretical and logical notations of the B method [ABR 96] and provides new notations for expressing abstract systems or simply models based on events.
Moreover, the refinement over models is a key feature for incrementally developing models from a textually-defined system, while preserving correctness; it implements the proof-based development paradigm. Each development. includes proofs for invariance and refinement. Operations of the classic B method do not exist in the event B method and are substituted by events. Events modify the system state (or state variables), by executing an action, but if a guard holds: event is not called but observed. When refining machines in classic B, one should maintain the number of op-erations both in the abstract machine the refinement; on the contrary, new events may be introduced in the refinement model and they may modify only new variables. New events bring new proof obligations for ensuring a correct refinement. Finally, an event B model is a closed system with a finite list of state variables and a finite list of events. If the system reacts to its environment, the event B model should integrate events of the environment.
Proof-based development methods integrate formal proof techniques in the development of software systems. The main idea is to start with a very abstract model of the system under development. We then gradually add details to this first model by building a sequence of more concrete ones. The relationship between two successive models in this sequence is that of *refinement* [BAC 79, ABR 96, CHA 88]. It is controlled by means of a number of, socalled, *proof obligations*, which guarantee the correctness of the development. Such proof obligations are proved by automatic (and interactive) proof procedures supported by a proof engine. The essence of the refinement relationship is that it preserves already proved *system properties* including safety properties and termination properties. The invariant of an abstract model plays a central role for deriving safety properties and our methodology focuses on the incremental discovery of the invariant; the goal is to obtain a formal statement of properties through the final invariant of the last refined abstract model.

1.1 Refining formal models

Formal models contain *events* which preserve some invariant properties; they also include aspects related to the termination. The refinement of formal models plays a central role in these frame works and is a key concept for developing (sequential, distributed, communicating) computer-based systems. When one refines a formal model, the corresponding more concrete model may have new variables and new events; it may also

strengthen the *guards* of more abstract events. As already mentioned, some proof obligations are generated in order to prove that a refinement is correct. Notice that, if some proof obligations remain unproved, it means that either the formal model is not correctly refined or that an interactive proving session is required. The prover allows us to get a complete proof of the development and hence of the final system. No assumption is made about the *size* of the system, for instance, the number of nodes in a network, where the problem is to elect a leader [ABR 03e]. This contrasts with what should be done while using model-checking techniques.

1.2 Structuring Event-B Models

An event-B model is structured with

- Contexts that contain carrier sets, axioms and theorems (seen by various machine)
- Machines which sees the contexts and defines a state space (static part: variables + labelled invariants) and a dynamic part made of some events.
- A context may be extended; A machine may be refined.

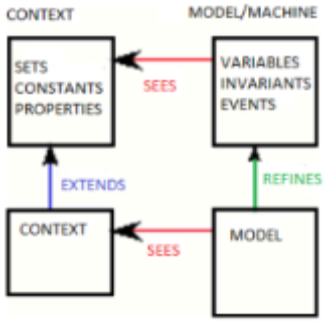


Fig. 1 Event-B model

The realisation of the abstract data types can be done via generic instantiation by Event-B experts. In particular, the choice of which (concrete) data structure to use to represent the abstract data type can be done idependently of the actual system under development.
Later, generic instantiation in Event-B enables the Event-B expert to prove taht the chosen data structure is valid realisation of the abstract data type.

1.3 System description

We shall try to develop formal model for controling records arrived to the computer network produced by various department of the company.
Each branch could send a record through the network to the central file built as a stack.The system must ensure that:

- Each branch could be represented by at most one kind of rekord
- Moreover,records are assumed to move forword the stack

We first formalise the record abstract data type(ART) in context focusing on requirement 1.In particular,we consider the following attribute of a record:
The branch that the record represnts,we refer to it as record's area.
Let the set of branches be a carrier set BRANCHE. We abstractly represent the records state by a constant RECORD,that is a subset of the carrier set RECORD_TYPE The function constant area is used to get the information about the records'area.For an abstract data type descriping a record,we can see this constant as operation of the data type.
area: takes a record state, returns a branch.
In Event-B we give the typing information for this constant using the following invariant:

```
invariants
  @inv1 records ∈ RECORD_ID → RECORD
  @inv3 area ∈ RECORD → ℙ(BRANCH)
  @inv4 new_records ∈ BRANCH → RECORD
```

Fig. 2 Invariants in the stack project – Event-B model

We define an additional operation new_records to create a new_records when records inters the network from a particular branch.
Using the record abstract data type, the system can be modelled. Let RECORD_ID be the set of possible IDs for records in the network.The variable records represent the records currently monitored by the systems,which is mapping from record IDs to actual records. Initially,records is assigned the empty set.
Invariant captures requirement 1,stating that for any two distinct records t1,t2 they do not represent the same branch.

```
event enter
  any t s t1 t2
  where
    @grd1 t∉dom(records)
    @grd4 s∈ BRANCH
    @grd2 t1∉dom(records)
    @grd3 t2∉dom(records)
    @grd5 ∀t1,t2 · t1 ∈ dom(records) ∧ t2 ∈ dom(records)
    @grd6 ∀t1·t1∈dom(records)⇒s∉area(records(t1))
  then
    @act1 records(t) ≔new_records(s)
end
```

Fig. 3 Event enter in the stack project – Event-B model

```
machine stack1 //coment
sees cont_1
variables records new_records area

invariants
  @inv1 records ∈ RECORD_ID → RECORD
  @inv3 area ∈ RECORD → ℙ(BRANCH)
  @inv4 new_records ∈ BRANCH → RECORD

events
  event INITIALISATION
    then
      @act1 records ≔∅
      @act2 new_records ≔∅
      @act3 area ≔∅
  end

  event enter
    any t s t1 t2
    where
      @grd1 t∉dom(records)
      @grd4 s∈ BRANCH
      @grd2 t1∉dom(records)
      @grd3 t2∉dom(records)
      @grd5 ∀t1,t2 · t1 ∈ dom(records) ∧ t2 ∈ dom(records)
      @grd6 ∀t1·t1∈dom(records)⇒s∉area(records(t1))
    then
      @act1 records(t) ≔new_records(s)
  end
```

Fig. 4 Event-B model: stack1

2 CONCLUSION

Our approach was building formal model in Event-B using abstract data type allowing us to hide irrelevant details that are unimportant for proving abstract properties, so on the abstract level we can therefore focus on modeling the system core functionality.

As a future work could be fault tolerance multi-agent system, where the agent controlling the conversation changes its goals and requires the conversation to be cancelled.

Sources

1. J.-R. ABRIAL. *Modeling in Event-B*, Swiss Federal University (ETH), Zürich, 2010. ISBN: 978-0-521-89556-9
2. http://www.event-b.org
3. J.-R. ABRIAL, M. BUTLER, S. HALLERSTEDE, & L. Voisin (2006), An open extensibletoolenvironmentforEvent-B, *Springer*, Vol. 4260 of*LNCS*, 2006, pp 588–605, ISSN 0302-9743.
4. ABRIAL, J.-R.*Modeling in Event-B*, Cambridge, 2010. ISBN-13 978-0-511-72976-8, CAMBRIDGE UNIVERSITY PRESS
5. JASTRAM, M., BUTLER, M.*Rodin User's Handbook*: Covers Rodin v.2.8, CreateSpace Independent Publishing Platform, 2014. ISBN 10: 1495438147 ISBN 13: 9781495438141, USA. https://www3.hhu.de/stups/handbook/rodin/current/pdf/rodin-doc.pdf.
6. Rodin User's Handbook v.2.8, Accessed on: 2014-02-04https://www3.hhu.de/stups/handbook/rodin/current/html/introduction.html.
7. HALLERSTEDE, S.,*JustificationsfortheEvent-B Modelling Notation*. B:Formal Specification and Development in B,*Springer*, Vol. 4355, 2007., pp 49-63., ISSN 0302-9743
8. http://wiki.event-b.org/index.php/Rodin_Platform_3.2_Release_Notes*Rodin Platform 3.2 Release Notes*, Accessed on: 2015-11-05

Contact

Prof. Dr. Said Krayem, CSc.
FAI, UTB Zlín, Nad Stráněmi 4511, Zlín, Czech Republic
Tel: +123 456 789
email: drsaid@seznam.cz

Mgr. Ivo Lazar
FAI, UTB Zlín, Nad Stráněmi 4511, Zlín, Czech Republic
email: ivo.lazar@centrum.cz

Mohammad Kadi
FAI, UTB Zlín, Nad Stráněmi 4511, Zlín, Czech Republic
email: mkady@arcom.com.sa

Awwama Emad
FAI, UTB Zlín, Nad Stráněmi 4511, Zlín, Czech Republic
e-mail: emad_awwama@hotmail.com

Mohamad Alarsan
FAI, UTB Zlín Nad Stráněmi 4511, Zlín, Czech Republic
e-mail: m_alarsan@yahoo.com

Doc. Pavel Kovařík CSc.
VŠKE, a.s. Brno
e.mail: PavelKovarik@seznam.cz

MODELOVÁNÍ OPTIMALIZAČNÍCH ÚLOH

MODELLING OF OPTIMIZATION PROBLEMS

Ondřej Míča

Abstrakt

V současné době je stále více optimalizačních úloh řešeno pomocí výpočetní techniky, díky které jsme schopni řešit čím dál tím složitější problémy. Pokud ale má být řešení korektní a kvalitní, je třeba správně definovat reprezentaci reálného světa (model), se kterým bude výpočetní technika pracovat. Tento text obsahuje ucelený obecný postup, kterého je vhodné se držet při tvorbě takových modelů.

Klíčová slova: *optimalizace, modelování, matematické programování*

Abstract

In these days more and more optimization problems are solved by computers, which is why we are able to solve increasingly complex problems. However, if the solution is to be correct and of good quality, it is necessary to correctly define the representation of the real world (model) with which the computers will work. This paper contains a comprehensive general approach that should be followed when creating such models.

Key words: *optimization, modelling, mathematical programming*

1 OPTIMALIZACE

Optimalizace je základní myšlenkou v různých oborech znalostí, jako jsou: operační výzkum, správa, finance, telekomunikace atd., které se používají při návrhu, analýze a rozhodování v systémech.

Na základě výše uvedeného lze termín „optimalizace“ chápat jako soubor znalostí, principů, teorií, technik, užitečných nástrojů a potřebných k řešení problémů matematického programování.

Obecně řečeno, řešení problému je racionální proces, který zahrnuje identifikaci problému a provedení některých akcí za účelem jeho odstranění nebo snížení. Tento proces musí být systematický a řídit se dostupnými znalostmi o systému.

„Optimalizační problém“ může být vyjádřen jako zjištění hodnoty některých rozhodovacích proměnných, pro které určitá účelová funkce (nebo několik účelových funkcí) dosáhne své maximální nebo minimální hodnoty podle charakteristik problému. Někdy hodnota rozhodovacích proměnných podléhá souboru omezení.

„Model“ je selektivní reprezentace nebo abstrakce (kvantitativní nebo kvalitativní) vlastností systému. Každý problém optimalizace musí být formulován pomocí „matematického modelu“, protože tyto modely stručně a jednoznačně popisují vztahy nebo podmínky problému řešené jazykovými a matematickými strukturami, které umožňují použití matematických a výpočetních technik [1].

2 MODELY POUŽÍVANÉ V MATEMATICKÉM PROGRAMOVÁNÍ

Matematické modely se obecně skládají z následujících prvků [4]:

- Rozhodovací proměnné: jedná se o *n* číselných proměnných, jejich hodnota ovlivňuje kvalitu výsledného řešení.
- Omezující podmínky: představují množinu podmínek (vyjádřených jako rovnice nebo nerovnice), které musí výsledné řešení splňovat.
- Účelová funkce: jedná se o kvantitativní měření kvality řešení problému. Vyjadřuje se jako matematická funkce rozhodovacích proměnných.

Modelování je tvůrčí a intelektuální proces generování modelů, který musí být systematický, racionální a teoreticky řízený, jehož cílem je analyzovat a řešit problémy. Modelování problémů s optimalizací je řešeno, studováno a systematizováno vědní disciplínou zvanou operační výzkum. Modelování má zásadní význam, protože umožňuje vytvářet nástroj pro popis, studium, analýzu a porozumění chování systému.

3 PROCES TVORBY OPTIMALIZAČNÍCH MODELŮ

Proces tvorby optimalizačních modelů lze rozložit do dílčích fází. Obecně se ve všech fázích aplikuje princip logické úspornosti, který říká, že použité entity se nemají zmnožovat více, než je nutné (tzv. Occamova břitva).

Současně se také používá logický konstrukt, který stanoví, že dva protichůdné soudy o předmětu nebo události nemohou být současně platné v jeden okamžik. Proto stačí uznat platnost jednoho z nich, aby druhý byl formálně popřen. Jinými slovy: dvě navzájem se vylučující charakteristiky nelze přiřadit stejnému konceptu za stejných podmínek a ve stejnou chvíli. [2]

Při tvorbě optimalizačního modelu je vhodné postupovat po jednotlivých iteracích, jak je popisují následující podkapitoly.

3.1 Identifikace problému

V této fázi jsou zjišťovány, definovány a popisovány problémy v systému, které se dále analyzují. Činnosti tvořící tuto fázi jsou:

- Určení hranic systému.
- Charakteristika prostředí, ve kterém systém pracuje.
- Identifikace, charakteristika a analýza funkcí, cílů a prostředků systému.
- Vyhodnocení aktuálního stavu systému.
- Zjištění možných problémů.
- Identifikace důsledků těchto problémů.

3.2 Definice problému

V této fázi se vytváří model zkoumaného problému. Z toho důvodu tato fáze významně ovlivňuje výsledky a závěry získané z modelování, protože je obecně obtížné získat „správnou“ odpověď na „špatný“ problém [3]. V této fázi je rozhodnuto o tom, který z problémů v systému by měl být řešen. Činnosti prováděné v této fázi jsou:

- Definice problému, který se bude zkoumat.
- Určení předpokladů, za kterých bude systém modelován.
- Identifikace a popis alternativních řešení.
- Určení cílů studie.
- Sběr informací o problému.
- Slovní popis problému.

3.3 Vytvoření matematického modelu

V této fázi se nahrazuje kognitivní objekt jeho matematickým obrazem. Vytvoření vhodného modelu skutečnosti je zásadním krokem k dosažení uspokojivého řešení skutečného problému. Pro vytvoření matematického modelu se musí postupně definovat vlastnosti rozhodovacích proměnných, struktura rovnic nebo nerovnic, které správně reprezentují vztahy mezi rozhodovacími proměnnými a reálným problémem, účelová funkce a omezující podmínky. Jedná se o kreativní fázi, ve které je třeba věnovat pozornost přesnosti formulace.

3.4 Řešení modelu

Po vytvoření modelu se používají mechanismy (obecně algoritmy), s cílem nalézt optimální (nebo suboptimální) řešení daného problému. Během této fáze je možný vývoj nebo úprava některých algoritmů pro řešení matematického modelu.

Obecně se algoritmy dělí na:

- Exaktní algoritmy – vždy naleznou optimální řešení, použitelné jsou pro konkrétní typ úlohy.
- Heuristické algoritmy – nehledají optimální řešení, ale suboptimální řešení. Výhodou je jejich rychlost. Jsou navržené opět pro konkrétní typ úlohy.
- Metaheuristické algoritmy – nehledají optimální řešení, ale suboptimální řešení. Výhodou je jejich rychlost. Na rozdíl od heuristických algoritmů se jedná o obecné návrhy, které je možné po přizpůsobení použít na různé typy úloh.

3.5 Ověření modelu a získaného řešení

Cílem této fáze je zdokonalit navrhovaný model takovým způsobem, aby byl vhodným nástrojem pro analýzu a předvídání chování sledovaného systému. Pro dosažení výše uvedeného účelu se modelovací proces obvykle rekurzivně prochází od konstrukční fáze modelu po fázi ověřování a je dokončen až do dosažení rozumné predikce systému; to znamená, že každý navržený model musí být důkladně testován, aby bylo možné nalézt a napravit co nejvíce vad. Je nutné zajistit, aby model přiměřeně reprezentoval systém, ačkoliv existuje možnost, že v modelu existují některé skryté vady (které se nikdy nedají rozpoznat).

3.6 Interpretace řešení

Číselné výsledky získané v modelu jsou interpretovány jako soubor instrukcí, úkolů nebo rozhodnutí vydávaných jasným a srozumitelným způsobem pro účastníky systému.

4 KLASIFIKACE MATEMATICKÝCH MODELŮ

Vytvoření vhodného modelu reálného světa je rozhodujícím krokem k dosažení uspokojivého řešení skutečného problému. Modely matematického programování lze klasifikovat podle jejich vlastností následujícím způsobem [2]:

4.1 Modely spojité vs. diskrétní

Jestliže všechny rozhodovací proměnné modelu mohou nabývat libovolnou hodnotu $\mathbb{R}$, pak se říká, že optimalizační model je spojitý model. Naopak, když alespoň jedna rozhodovací proměnná nabývá hodnoty v $\mathbb{Z}$ nebo $\mathbb{N}$, pak se říká, že optimalizační model je diskrétní.

Pokud všechny proměnné nabývají hodnoty v $\mathbb{Z}$ nebo $\mathbb{N}$, je model považován za čistě diskrétní. Naproti tomu, pokud existuje nějaká spojitá proměnná, říká se, že model je smíšený.

4.2 Modely lineární vs. nelineární

Lineární model znamená, že všechny omezující rovnice a účelové funkcí se dají vyjádřit pomocí lineárních rovnic a nerovnic. Pokud tomu tak není, jedná se o nelineární model.

4.3 Modely monokriteriální vs. vícekriteriální

Ve vícekriteriálním modelu se objevuje soubor účelových funkcí (dvě nebo více) v konfliktu mezi sebou. Existence více účelových funkcí vyvolává zásadní rozdíl oproti monokriteriálnímu modelu: neexistuje jediné řešení problému, ale soubor řešení, která představují různé kompromisy mezi hodnotami funkcí, které mají být optimalizovány.

4.4 Modely deterministické vs. stochastické

Deterministický model je ten, ve kterém se předpokládá, že jsou s jistotou známy všechny relevantní údaje. To znamená, že pro libovolnou sadu hodnot rozhodovacích proměnných je s určitostí známo, zda jsou omezující podmínky splněny nebo nikoliv. Naproti tomu ve stochastických modelech se předpokládá, že některé proměnné jsou náhodné. Hodnota takových proměnných se řídí náhodným pokusem a není možné je určit předem.

4.5 Modely statické vs. dynamické

Statický model se používá k analýze systému v daném časovém okamžiku, takže se nebere v úvahu časový posun. Naopak v dynamickém modelu se předpokládá, že alespoň jeden rozhodovací prvek se vyvíjí nebo mění s ohledem na čas; proto model popisuje rozhodovací proměnné jako funkce času.

5 ZÁVĚR

S nástupem výpočetní techniky se značně rozšířily možnosti optimalizace. Pro to, optimalizační nástroje poskytovaly řešení odpovídající realitě, je nutné, aby pracovaly s kvalitními modely, které co možná nejdetailněji odpovídají reálnému světu.

Je jasné, že celý reálný svět nelze přenést do podoby jedniček a nul, se kterými počítače pracují. Proto se při tvorbě matematických modelů používá zjednodušení a abstrakce, aby model obsahoval pouze ty vlastnosti a charakteristiky, které přímo ovlivňují sledované chování modelu. Tento text obsahuje ucelený obecný postup, kterého je vhodné se držet při tvorbě takových modelů.

Použitá literatura

1. LINDA, Bohdan a Josef VOLEK. *Lineární programování*. Pardubice: Univerzita Pardubice, 2007. ISBN 978-80-7395-038-5.
2. JABLONSKÝ, Josef. *Operační výzkum: kvantitativní modely pro ekonomické rozhodování*. 3. vyd. Praha: Professional Publishing, 2007. ISBN 978-80-86946-44-3.
3. JANÁČEK, Jaroslav. *Optimalizace na dopravních sítích*. Žilina 2006 ISBN 80-8070-586-0.
4. JANÁČEK, Jaroslav a Ľubomír BUZNA. *Optimization in networks*. Žilina: University of Žilina, 2009. ISBN 9788080709853.

Kontaktní údaje

Ing. Ondřej Míča
Univerzita Pardubice, Dopravní fakulta Jana Pernera, Katedra informatiky v dopravě
Studentská 95, Pardubice 532 10
Tel: +420 466 036 428, Email: ondrej.mica@upce.cz

VYUŽITÍ HUDEBNÍ TEORIE PŘI ŘEŠENÍ OPTIMALIZAČNÍCH PROBLÉMŮ

POSSIBILITIES OF USING MUSIC THEORY FOR SOLVING OPTIMIZATION PROBLEMS

Ondřej Míča

Abstrakt

Hudba obklopuje téměř každého z nás každý den. Tento text se zabývá možným vztahem mezi hudební skladbou a možnostmi matematických řešení optimalizačních úloh.

Klíčová slova: *hudba, optimalizace*

Abstract

Music surrounds almost every one of us every day. This article deals with the possible relationship between the musical composition and the possibilities of mathematical solving optimization tasks.

Key words: *music, optimization*

1 HUDBA

Hudba je přítomna v běžném životě každého člověka, ať už při odpočinku člověka, komunikaci, nebo i mimoděk jen jako ruch v okolním prostředí. Hudba má velký vliv na osobnost člověka i na jeho sociální identitu, stejně tak na jeho individuální i kolektivní chování. Hudební význam je stejně široký jako kultura náboženství nebo vlastní společnost, ve které je rozvíjen [1].

Význam slova hudba se v průběhu historie vyvíjel. Etymologický původ slova hudba pochází z řeckého „musik“, což znamená „umění“. V současné době se hudbou rozumí umění kombinovat zvuky v čase. Podle Clauda Lévi-Strauss (1908 – 2009) je hudba jazykem, který má alespoň nějaký význam pro převážnou většinu lidstva, ačkoli jen malý počet lidí je schopen jej vytvořit. Navíc je to jediný jazyk, který je srozumitelný pro všechny bez nutnosti jej překládat [2].

1.1 Základní hudební pojmy

Hudba je umění, věda a jazyk, který organizuje motivy (hudební jednotky), s ohledem na principy melodie, rytmu a harmonie za účelem vysílání zpráv mezi skladatelem a divákem [1].

Motiv je soubor not tvořících melodickou, rytmickou a harmonickou jednotku hudebního díla. To znamená, že prvky tvořící motiv mají intervalové i rytmické vlastnosti, které se kombinují tak, aby společně vytvářely celek, který obsahuje vlastní harmonii [1].

Nota je symbolické znázornění vlastností zvuku nebo ticha, který je součástí hudby [1].

Zvuk je pocit, který vnímá ucho vibračními tělesy při příjmu vibrací. Vzhledem k fyziologickým vlastnostem ucha existují čtyři základní vlastnosti, které určují charakter zvuku: výška (dána frekvencemi vibrací), trvání, barva (dána spektrálním složením) a intenzita (dána amplitudou) [1].

Ticho je absence zvuku a jeho jedinou kvalitou je trvání [1].

1.2 Proces hudební kompozice

Slovo kompozice pochází z latinského výrazu „componere“, což znamená „shromáždit několik věcí, které dohromady tvoří jinou věc“. Z tohoto lze předpokládat, že proces hudební skladby (kompozice) je omezen na zřetězení zvuků a ticha. Což je mylná představa, protože se jedná o tvůrčí proces kombinace představivosti, hudebních prvků a znalostí s cílem získat hudební dílo, které splňuje určitý estetický standard. To znamená, že kompoziční proces je složitější než jednoduché spojení prvků, protože tento proces zahrnuje společensko-kulturní a osobní tvůrčí systémy pro vytvoření uměleckého produktu.

Na osobní úrovni se jedná o to, že každý skladatel strukturovaným způsobem vybírá, používá, kombinuje, přizpůsobuje a vytváří melodie podle svých znalostí, zkušeností a intuice. Na sociálně-kulturní úrovni to znamená, že každý skladatel na základě svých sociálních interakcí získává a analyzuje informace o míře přijetí, o jeho práci a o návrzích jiných hudebníků; na jehož základě získává a upravuje své znalosti, což vede ke vzniku struktury charakteristik díla, které uspokojí chutě veřejnosti.

1.3 Algoritmy používané pro generování hudby

Aplikace algoritmů v hudbě je stejně stará jako kompoziční proces [3] a počítačová kompozice hudby byla implementována již v 50. letech minulého století. Algoritmy v hudbě používají různé cesty, které zahrnují zvukovou syntézu, vzorkování a kompozici. Algoritmy hudební skladby používají řadu pravidel a pokynů pro získání výsledků [4].

Mezi nejznámější algoritmy vyvinuté pro hudební skladbu patří:

- Genetický algoritmus pro počítačovou hudební skladbu [5]. V tomto případě se používá systém založený na genetickém algoritmu pro výběr operátorů, které budou použity v procesu kompozice.
- GenJam [6] je interaktivní genetický algoritmus, který napodobuje jazzovou improvizaci.
- Skladba s genetickými algoritmy [3]. Prostřednictvím tohoto algoritmu autor realizuje stochastické změny v melodii s hlavním cílem dosáhnout postupů, které znějí dobře. V tomto návrhu se autor generuje sadu krátkých motivů, jejichž prvky jsou uspořádány různými způsoby, dokud není dosaženo dobrého pořadí.
- Alice [4]. Tento algoritmus vytváří hudbu prostřednictvím hledání kontinuity a formální logiky hudby použité jako základ.
- SARA [4], zkratkou v angličtině jednoduchého analytického rekombinantního algoritmu. V tomto algoritmu jsou racionálně implementovány časové změny v Markovově řetězci, používaném jako počáteční model.

2 VZTAH MEZI HUDEBNÍ SKLADBOU A OPTIMALIZACÍ

Hudební kompozice je tvůrčí proces (na osobní a společensko-kulturní úrovni), prostřednictvím kterého vzniká umělecké dílo. Na individuální úrovni je tvořivost skladatele způsobena nahodilými nápady (záblesky geniality) nebo rekurzivním procesem uvažování o myšlence (tvrdé práci) [3]. Naproti tomu je sociokulturní tvořivost vytvářena interakcí sociálních členů, která vytváří změny v sociální struktuře.

V případě hudby se nástavba přizpůsobuje vzorům a konvencím vytvořeným podle vkusu a preferencí určité sociální skupiny. Styly nebo hudební žánry proto vycházejí ze společných

prvků v souboru jednotlivých hudebních skladeb; například: současné popové kousky se vyrábějí z kombinace malého souboru harmonií a melodií.

Analogie je forma uvažování, ve které je myšlenka nebo pojem odvozen z podobností s jinou myšlenkou nebo konceptem v určitých aspektech, což se děje na základě poznání [4].

Při hledání analogie mezi procesem optimalizace a hudebním složením byly navrženy následující paradigmata:

1. Předpokládá se, že činnost hudební skladby zahrnuje konečný počet kroků [4].
2. Přirozeným způsobem může být proces kompozice vnímán jako algoritmus; protože potřeba kompozice je podobná potřebě vyřešit problém [4].
3. Systém sociokulturní tvořivosti znamená, že jednotlivci jsou schopni učit se ze svých zkušeností, stejně jako jsou schopni tyto informace využít při budoucích rozhodnutích.
4. Možné změny hudebního díla vycházejí ze zkušeností z dřívějších děl, rekombinace myšlenek a vlivů jiných skladatelů prostřednictvím získaného učení a nahodilých nápadů.

Proces hudební kompozice je tvůrčí proces (na osobní a sociálně-kulturní úrovni), založený na znalostech a představách skladatele, který vychází z potřeby a / nebo touhy skladatele. V tomto procesu jsou vybírány a organizovány hudební motivy s cílem vytvořit hudební dílo, které vytváří maximální spokojenost umělce. Podobně proces optimalizace začíná potřebou vyřešit problém při rozhodování.
Při procesu optimalizace jsou také zapojeny lidské znalosti a kreativita s cílem přesně popsat a modelovat problém pomocí definovaných metod řešení a skombinovat hodnoty rozhodovacích proměnných, pro nalezení co nejlepší hodnoty účelové funkce. Proto proces optimalizace velmi připomíná proces hudební skladby. Podrobněji popsané vztahy mezi procesy optimalizace a skladby jsou uvedeny v tabulce 1.

Tabulka 1: Analogie mezi optimalizací a hudební kompozicí. Zdroj [8].

Základní otázka	**Optimalizace**	**Kompozice**
Proč používat?	Řešení problému.	Vytvoření skladby.
Co hledám?	Globální optimum.	Dílo, které se bude líbit posluchačům.
Jak poznám kvalitu výstupu?	Účelovou funkcí.	Úroveň spokojenosti posluchačů
Co jsou proměnné?	Řídící proměnné.	Motivy.
Jaké jsou vlastnosti výstupu?	Hodnoty proměnných.	Zvuková charakteristika motivu.
Jedná se o konečný proces?	Ano.	Ano.
Co je základní jednotkou procesu?	Iterace.	Provedení skladby.

3 ZÁVĚR

Z výšeuvedeného vyplývá, že vztah mezi hudební skladbou a řešením optimalizačních problémů je poměrně zásadní. Proto i poslední dobou vznikají nové optimalizační algoritmy, které si berou inspiraci v hudbě. Jako příklady lze uvést např. metodu Harmony search, kterou navrhl Zong Woo Geem [7], nebo MMC algoritmus, který vytvořili Roman Anselmo Mora-

Gutiérrez a kol. [8]. Obecně se dá předpokládat, že další optimalizační algoritmy inspirované hudbou budou následovat.

Použitá literatura

1. KOFROŇ, J. *Učebnice harmonie*. 3. Praha: Státní hudební vydavatelství, 1963.
2. LÉVI-STRAUSS, C. *The raw and the cooked*. Chicago: University of Chicago Press, 1983. ISBN 978-0226474878.
3. JACOB, B. L. *Composing with Genetic Algorithm*. Proc. Of the 1994 International Computer Music Conference, 452-455. 1995.
4. COPE, David. *The algorithmic composer*. Madison, Wis: A-R Ed, 2000. ISBN 9780895794543.
5. HORNER, A. & AYERS, L. *Harmonisation of musical progression with genetic algorithms*. ICMC'95 Proceedings, San Francisco: International Computer Music Association, 483-484. 1995.
6. BILES, J. A. *GenJam: A Genetic Algorithm for Generating Jazz Solos*, Int. Computer Music Conf. (ICMC'94). Aarhus, Denmark, 131-137. 1994.
7. GEEM, Z. W. *Music-inspired harmony search algorithm: theory and applications*. Berlin: Springer, 203 p. 2009. ISBN 978-3-642-00184-0.
8. MORA-GUTIÉRREZ, R. A., RAMÍREZ-RODRÍGUEZ, J., & RINCÓN-GARCÍA, E. A. *An optimization algorithm inspired by musical composition*. The Artificial Intelligence Review, 41(3), 301-315. 2014. doi:http://dx.doi.org/10.1007/s10462-011-9309-8

Kontaktní údaje

Ing. Ondřej Míča
Univerzita Pardubice,
Dopravní fakulta Jana Pernera,
Katedra informatiky v dopravě,
Studentská 95, Pardubice 532 10.
Tel: +420 466 036 428
Email: ondrej.mica@upce.cz

THE QUADRATIC PROGRAMMING IN MODELLING OF INFORMATION SYSTEMS

Andrey Semakhin

Abstract

Increase of efficiency of designing of information system of the organization in conditions of indeterminacy and risk is an actual problem. The methods of the theory of operations research are applied to the decision of a problem. The method of definition of the optimum project of information system in conditions of partial indeterminacy is developed. The problem of nonlinear programming is formulated. The method of Lagrange multipliers is used for definition of the optimum plan of mathematical model. Application of the developed method allows to reduce financial expenses and terms of designing of information systems and to raise validity of accepted decisions at a design stage.

Keywords: *information system, indeterminacy, nonlinear programming, mathematical model, method of Lagrange multipliers, optimum decision, risk, partial indeterminacy algorithm, flowchart, program.*

1 Introduction

Designing of information systems is a difficult, time consuming and long-term work. It requires highly skilled specialists. Designing of information systems is quite often carried out at an intuitive level by not formalized methods. The requirements can change during creation or functioning of information systems [1]. Increase of efficiency of designing of information systems is an actual problem. Designing of information systems in conditions of determinacy and indeterminacy has been considered in scientific works [2-5]. Designing of information systems in conditions of partial indeterminacy is a special case.

2 Statement of problem

The problem is formulated as follows: from among the firms, rendering services satellite Internet in territory of the Russian Federation, in conditions of partial indeterminacy it is required to choose the Internet service provider with the minimal size of a dispersion of efficiency of projects of information systems and satisfying to restrictions.

3 Development of mathematical model

Let $P=\{p_1, p_2,..., p_n\}=\{p_i\}$ – set of projects of information system, $R=\{r_1, r_2,...,r_n\}=\{r_i\}$ – set of efficiencies of projects of information system, $i=\overline{1,n}$. Efficiencies r_i – random uncorrelated values. Efficiency r_0 – the efficiency of the risk-free part of the projects of information systems. Mathematical expectation m_0 – mathematical expectation of efficiency r_0. Characteristics of random variables r_i are mathematical expectation $MR=m_i$ and variance $DR_i=\sigma_i^2$ of the efficiencies of information systems projects. Mathematical expectation $MR=m_i$ and variance $DR_i=\sigma_i^2$ of the efficiencies of information systems projects are known values. The value of the average efficiency of the group of information system projects m_p is given by the person making a decision.

Let the desired variables X_i is the proportion of financing projects of information system p_i, $i=\overline{1,n}$. The variable X_0 is the share of funding for risk-free projects. Variables X_i and X_0 satisfy to conditions $0 \le X_i \le 1,\ 0 \le X_0 \le 1,\ \sum_{i=1}^{n} X_i + X_0 = 1$.

It is necessary to determine the optimal project and share risk-free projects of information systems in conditions of partial indeterminacy. The problem is formulated as nonlinear programming.

The quadratic programming model follows

$$\min \leftarrow Z = \sum_{i=1}^{n} \sum_{j=1}^{n} X_i * X_j * \operatorname{cov}(r_i, r_j)$$

subject to (1)

$$\begin{cases} \sum_{i=1}^{n} X_i + X_0 = 1 \\ \sum_{i=1}^{n} m_i * X_i + r_0 * X_i = m_p \\ X_0 \ge 0,\ X_i \ge 0,\ i = \overline{1,n} \end{cases}$$

where X_i – the share of financing of the i project;

X_0 – the share of risk-free projects;

$\operatorname{cov}(r_i, r_j)$ – the covariance r_i and r_j, $\sigma_p^2 = \sum_{i=1}^{n} \sum_{j=1}^{n} X_i * X_j * \operatorname{cov}(r_i, r_j)$;

r_0 – the effectiveness of the risk-free projects information system;

m_i – the mathematical expectation of the effectiveness of the i project;

m_p – the value of the average efficiency of the group projects;

i – the project number, $i = \overline{1,n}$;

n – the quantity of projects [6].

The optimal solution of a nonlinear mathematical model is determined by the method of Lagrange [7-11]. Lagrangian method determines the optimal solution of the problem on conditional extremum. The definition of conditional extremum of the function $f(x_1,...,x_n)$ is replaced by the definition of the unconditional extremum of the Lagrange function $L(x_1,...,x_n, \lambda_1,...,\lambda_m)$, x_i – the variables, λ_j – the Lagrange multipliers, $i = \overline{1,n}$, $j = \overline{1,m}$, $m < n$.

Necessary condition for an extremum is reduced to the existence of a system of equations.

$$\begin{cases} \frac{\partial L}{\partial x_1} = \frac{\partial f}{\partial x_1} - \sum\limits_{j=1}^{k} \lambda_j * \frac{\partial \varphi_j}{\partial x_1} = 0 \\ ... \\ \frac{\partial L}{\partial x_n} = \frac{\partial f}{\partial x_n} - \sum\limits_{j=1}^{k} \lambda_j * \frac{\partial \varphi_j}{\partial x_n} = 0 \\ \frac{\partial L}{\partial \lambda_1} = b_1 - \varphi_1(x_1,...,x_n) = 0 \\ ... \\ \frac{\partial L}{\partial \lambda_m} = b_m - \varphi_m(x_1,...,x_n) = 0 \end{cases} \quad (2)$$

Necessary condition for an extremum allows to determine the unknown variable $x_1,...,x_n, \lambda_1,...,\lambda_m$, $i = \overline{1,n}$, $j = \overline{1,m}$, $m < n$ [10 - 12]. Sufficient condition of extremum allows to determine the stationary point in which the function $f(x_1,...,x_n)$ reaches a conditional extremum. The function $f(x_1,...,x_n)$ has a stationary point $(x_1,...,x_n, \lambda_1,...,\lambda_m)$ a conditional maximum, if $d^2L < 0$, and the conditional minimum, if $d^2L > 0$ [13-16].
Determine the mathematical dependence of the optimal share of risk-free projects $x_0^* = f(m_i, \sigma_i, m_p, r_0)$, the optimal proportion of projects $x_i^* = f(m_i, \sigma_i, m_p, r_0)$, the standard deviation of project $\sigma_p^* = f(m_i, \sigma_i, m_p, r_0)$. The ignored condition for the nonnegativity of decision variables of the mathematical model 1.

$$\min \leftarrow Z = \sum_{i=1}^{n} \sum_{j=1}^{n} X_i * X_j * \operatorname{cov}(r_i, r_j)$$

subject to (3)

$$\begin{cases} 1 - \sum\limits_{i=1}^{n} X_i - X_0 = 0 \\ m_p - \sum\limits_{i=1}^{n} m_i * X_i - r_0 * X_i = 0 \end{cases}$$

Define the Lagrangian.

$$L(x_0, x_1,..., x_n, \lambda, \mu) =$$

$$\sum_{i=1}^{n} x_i * x_j * \operatorname{cov}(r_i, r_j) + \lambda * (1 - \sum_{i=1}^{n} x_i - x_0) + \mu * (m_p - \sum_{i=1}^{n} x_i * m_i - r_0 * x_0) \quad (4)$$

Apply a necessary condition of the extremum of the function

$$\begin{cases} \dfrac{\partial L}{\partial x0} = -\lambda - \mu * r_0 = 0 \\ \dfrac{\partial L}{\partial x_l} = 2 * \sum\limits_{i=1}^{n} \operatorname{cov}(r_i, r_j) * x_i - \lambda - \mu * m_i = 0 \\ \dfrac{\partial L}{\partial \lambda} = 1 - \sum\limits_{i=1}^{n} x_i - x_0 = 0 \\ \dfrac{\partial L}{\partial \mu} = m_p - \sum\limits_{i=1}^{n} m_i * x_i - r_0 * x_0 = 0 \end{cases} \quad (5)$$

Use matrix notation. Let $e = \begin{pmatrix} 1 \\ ... \\ 1 \end{pmatrix}$, $x = \begin{pmatrix} x_1 \\ ... \\ x_n \end{pmatrix}$, $m = \begin{pmatrix} m_1 \\ ... \\ m_n \end{pmatrix}$

The covariance matrix has the form $B = \begin{pmatrix} \sigma_1^2 & 0 & ... & 0 \\ 0 & \sigma_2^2 & ... & 0 \\ ... & ... & ... & ... \\ 0 & 0 & ... & \sigma_n^2 \end{pmatrix}$. The inverse matrix can be written as $B^{-1} = \begin{pmatrix} 1/\sigma_1^2 & 0 & ... & 0 \\ 0 & 1/\sigma_2^2 & ... & 0 \\ ... & ... & ... & ... \\ 0 & 0 & ... & 1/\sigma_n^2 \end{pmatrix}$. Then the following mathematical expressions derived from the system of equations 5.

$$\lambda = -\mu * r_0,$$

$$B * x^* = \frac{\lambda}{2} * e + \frac{\mu}{2} * m, \quad (6)$$

$$x^* = \frac{\lambda}{2} * B^{-1} * e + \frac{\mu}{2} * B^{-1} * m$$

After substituting the mathematical expression 6 in terms of the system of equations 5, we get the system of equations

$$\begin{cases} \dfrac{\mu}{2} * (-r_0 * e^T * B^{-1} * e + e^T * B^{-1} * m) = 1 - x_0^* \\ \dfrac{\mu}{2} * (-r_0 * m^T * B^{-1} * e + m^T * B^{-1} * m) = m_p - r_0 * x_0^* \end{cases} \quad (7)$$

Dividing the second equation into the first, obtain the mathematical expression

$$\frac{m_p - r_0 * x_0^*}{1 - x_0^*} = \frac{m^T * B^{-1} * m - r_0 * (m^T * B^{-1} * e)}{(e^T * B^{-1} * m) - r_0 * (e^T * B^{-1} * e)} \quad (8)$$

Determine from the mathematical expression 8.

$$x_0^* = \frac{[(m^T * B^{-1} * m) - r_0 * (m^T * B^{-1} * e)] - m_p * [(e^T * B^{-1} * m) - r_0 * (e^T * B^{-1} * e)]}{[(m^T * B^{-1} * m) - r_0 * (m^T * B^{-1} * e)] - r_0 * [(e^T * B^{-1} * m) - r_0 * (e^T * B^{-1} * e)]} \quad (9)$$

Define $\frac{\mu}{2}$ found in formula 9 value x_0^*.

$$\frac{\mu}{2} = \frac{m_p - r_0}{(m^T * B^{-1} * m) - 2 * r_0 * (m^T * B^{-1} * e) + r_0^2 * (e^T * B^{-1} * e)} = \frac{m_p - r_0}{(m - r_0 * e)^T * B^{-1} * (m - r_0 * e)} \quad (10)$$

Substitute the obtained value into the expression 6.

$$\frac{\lambda}{2} = -\frac{r_0 * (m_p - r_0)}{(m - r_0 * e)^T * B^{-1} * (m - r_0 * e)} \quad (11)$$

The value x_i^* will be calculated according to the formula.

$$x_i^* = \frac{(m_p - r_0) * B^{-1} * (m - r_0 * e)}{(m - r_0 * e)^T * B^{-1} * (m - r_0 * e)} \quad (12)$$

Dispersion $(\sigma_p^*)^2$ of projects is determined by the formula

$$(\sigma_p^*)^2 = (x^*)^T * B * x^* = \frac{(m_p - r_0)^2}{(m - r_0 * e)^T * B^{-1} * (m - r_0 * e)} \quad (13)$$

The standard deviation is calculated according to the formula

$$\sigma_p^* = \frac{m_p - r_0}{\sqrt{(m - r_0 * e) T * B^{-1} * (m - r_0 * e)}} \quad (14)$$

Imagine the denominator of the mathematical expression 14 in the form of

$$(m - r_0 * e)^T * B^{-1} * (m - r_0 * e) = \sum_{i=1}^{n} \frac{(m_i - r_0)^2}{\sigma_i^2} \quad (15)$$

Then the mathematical expression 9, 12, 13 defining , x_0^*, x_i^*, σ_p^* respectively, can be written as

$$x_0^* = \frac{\sum_{i=1}^{n} \frac{(m_i - m_p) * (m_i - r_0)}{\sigma_i^2}}{\sum_{i=1}^{n} \frac{(m_i - r_0)^2}{\sigma_i^2}} \quad (16)$$

$$x_i^* = \frac{(m_i - r_0) * (m_i - r_0)}{\sigma_i^2 * \sum_{i=1}^{n} \frac{(m_i - r_0)^2}{\sigma_i^2}} \quad (17)$$

$$\sigma_p^* = \frac{(m_p - r_0)}{\sqrt{\sum_{i=1}^{n} \frac{(m_i - r_0)^2}{\sigma_i^2}}} \quad (18)$$

Analysis of equation 16 shows that if $x_0^* = 0$, all risky projects, if $x_0^* = 1$, all projects are risk-free, if $1 < x_0^* < 0$, part of the projects risk-free [6].

For example, the optimal project and share risk-free projects information system are determined on the example of the main Department of social protection of the population in the Kurgan region.

Let X_1 – the share of financing of the project Skydsl, X_2 – share of financing of the project Tricolor-Internet, X_3 – share of financing of the project Open Sky, X_4 – share of financing of the project LanSat, X_5 – share of financing of the project GxSAT. The variable X_0 is the share of risk-free projects.

Projects information systems have efficiency $R = \{r_1, r_2, r_3, r_4, r_5\} = \{r_i\}$, $i = \overline{1,5}$. The effectiveness of the project information system r_i is a random uncorrelated variable. The effectiveness r_0 is the effectiveness of the risk-free projects . Initial data are given in table 1.

Table 1 – Source data

№	Project	Efficiency r_i	Mathematical expectation m_i	Standard deviation σ_i
1	Skydsl	r_1	15	5
2	Триколор Интернет	r_2	10	3
3	Open Sky	r_3	20	8
4	LanSat	r_4	16	6
5	GxSAT	r_5	12	4

The value of the average efficiency of the group projects $m_p = 11$. The value of the effectiveness of the risk-free part projects r_0. The mathematical expectation $m_0 = 5$. The mathematical model of choosing the optimal project information system is

$$\min \leftarrow Z = 25 * X_1^2 + 9 * X_2^2 + 64 * X_3^2 + 36 * X_4^2 + 16 * X_5^2$$

subject to (19)

$$\begin{cases} X_1 + X_2 + X_3 + X_4 + X_5 + X_0 = 1 \\ 15 * X_1 + 10 * X_2 + 20 * X_3 + 16 * X_4 + 12 * X_5 + 5 * X_0 = 11 \\ X_0, X_1, X_2, X_3, X_4, X_5 \geq 0 \end{cases}$$

4 The decision of mathematical model

The optimal plan of a nonlinear mathematical model is determined by the method of Lagrange multipliers. The algorithm to solve the optimization problem by the method of Lagrange multipliers involves stages.

Step 1. Lagrange function is defined.

Lagrange function has the form.

$$L(x_1,...,x_n,\lambda_1,...,\lambda_m) = f(x_1,...,x_n) + \sum_{j=1}^{m} \lambda_j * [b_j - \varphi_j(x_1,...,x_n)]$$

Step 2. The stationary points of the Lagrange function are determined.

The stationary points are determined from the system of equations.

$$\begin{cases} \dfrac{\partial L}{\partial x_i} = \dfrac{\partial}{\partial x_i} - \sum\limits_{j=1}^{m} \lambda_j * \dfrac{\partial \varphi_j}{\partial x_i} = 0, \mathrm{i} = \overline{1,\mathrm{n}} \\ \dfrac{\partial L}{\partial \lambda_j} = b_j - \varphi_j(x_1,...,x_n) = 0,\ j = \overline{1,m} \end{cases}$$

Step 3. Conditional extrema of the function are determined.

Stationary points of Lagrange function in which function $f(x_1,...,x_n)$ has conditional extrema are defined [7, 8].

Mathematical model (19) are converted to the form

$$\min \leftarrow Z = 25 * X_1^2 + 9 * X_2^2 + 64 * X_3^2 + 36 * X_4^2 + 16 * X_5^2$$

subject to (20)

$$\begin{cases} 1 - (X_1 + X_2 + X_3 + X_4 + X_5 + X_0) = 0 \\ 11 - (15 * X_1 + 10 * X_2 + 20 * X_3 + 16 * X_4 + 12 * X_5 + 5 * X_0) = 0 \\ X_0, X_1, X_2, X_3, \mathrm{X}_4, \mathrm{X}_5 \geq 0 \end{cases}$$

Define the Lagrangian

$$L(x_0, x_1,..., x_n, \lambda, \mu) =$$

$$25 * x_1^2 + 9 * x_2^2 + 64 * x_3^2 + 36 * x_4^2 + 16 * x_5^2 + \lambda * (1 - x_1 - x_2 - x_3 - x_4 - x_5 - x_0) + \quad (21)$$

$$\mu * (11 - (15 * x_1 + 10 * x_2 + 20 * x_3 + 16 * x_4 + 12 * x_5 + 5 * x_0))$$

Performed necessary condition for an extremum

$$\begin{cases} \dfrac{\partial L}{\partial x_0} = -\lambda - 5 * \mu = 0 \\ \dfrac{\partial L}{\partial x_1} = 50 * x_1 - \lambda - 15 * \mu = 0 \\ \dfrac{\partial L}{\partial x2} = 18 * x_2 - \lambda - 10 * \mu = 0 \\ \dfrac{\partial L}{\partial x3} = 128 * x_3 - \lambda - 20 * \mu = 0 \\ \dfrac{\partial L}{\partial x4} = 72 * x_4 - \lambda - 16 * \mu = 0 \\ \dfrac{\partial L}{\partial x5} = 32 * x_5 - \lambda - 12 * \mu = 0 \\ \dfrac{\partial L}{\partial \lambda} = 1 - x_1 - x_2 - x_3 - x_4 - x_5 - x_0 = 0 \\ \dfrac{\partial L}{\partial \mu} = 11 - 15 * x_1 - 10 * x_2 - 20 * x_3 - 16 * x_4 - 12 * x_5 - 5 * x_0 = 0 \end{cases} \tag{22}$$

Define x_1, x_2, x_3, x_4, x_5 projects in General

$$\begin{cases} x_1 = \dfrac{\lambda + 15 * \mu}{50} \\ x_2 = \dfrac{\lambda + 10 * \mu}{18} \\ x_3 = \dfrac{\lambda + 20 * \mu}{128} \\ x_4 = \dfrac{\lambda + 16 * \mu}{72} \\ x_5 = \dfrac{\lambda + 12 * \mu}{32} \end{cases} \tag{23}$$

Substitute the expression in the last two equations of the system of equations 22

$$\begin{cases} \dfrac{\lambda + 15 * \mu}{50} + \dfrac{\lambda + 10 * \mu}{18} + \dfrac{\lambda + 20 * \mu}{128} + \dfrac{\lambda + 16 * \mu}{72} + \dfrac{\lambda + 12 * \mu}{32} = 1 - x_0 \\ 15 * \dfrac{\lambda + 15 * \mu}{50} + 10 * \dfrac{\lambda + 10 * \mu}{18} + 20 * \dfrac{\lambda + 20 * \mu}{128} + 16 * \dfrac{\lambda + 16 * \mu}{72} + \\ 12 * \dfrac{\lambda + 12 * \mu}{32} = 11 - 5 * x_0 \end{cases} \tag{24}$$

We transform the system of equations 23 to mind

$$\begin{cases} \dfrac{1}{2} * [\dfrac{\lambda + 15 * \mu}{25} + \dfrac{\lambda + 10 * \mu}{9} + \dfrac{\lambda + 20 * \mu}{64} + \dfrac{\lambda + 16 * \mu}{36} + \dfrac{\lambda + 12 * \mu}{16}] = 1 - x_0 \\ \dfrac{1}{2} * [15 * \dfrac{\lambda + 15 * \mu}{25} + 10 * \dfrac{\lambda + 10 * \mu}{9} + 20 * \dfrac{\lambda + 20 * \mu}{64} + 16 * \dfrac{\lambda + 16 * \mu}{36} + \\ 12 * \dfrac{\lambda + 12 * \mu}{16}] = 11 - 5 * x_0 \end{cases} \tag{25}$$

We transform the system of equations 25 to mind

$$\begin{cases} \dfrac{2131776*\lambda + 26691840*\mu}{8294400} = 2 - 2*x_0 \\ \dfrac{20471040*\lambda + 352281600*\mu}{8294400} = 22 - 2*5*x_0 \end{cases} \quad (26)$$

Divide the left part of the equations 26 and write in the form

$$\begin{cases} 0.257*\lambda + 3.218*\mu = 2 - 2*x_0 \\ 1.234*\lambda + 21.236*\mu = 11 - 5*x_0 \end{cases} \quad (27)$$

Express and write the system of equations 27 in the form of

$$\begin{cases} x_0 = \dfrac{2 - 0.257*\lambda - 3.218*\mu}{2} \\ x_0 = \dfrac{11 - 1.234*\lambda - 21.236*\mu}{5} \end{cases} \quad (28)$$

After conversion of the system of equations 28 will receive the final

$$\begin{cases} 1.183*\lambda + 26.382*\mu = 12 \\ \lambda = -5*\mu \end{cases} \quad (29)$$

Solving a system of 29, get $\mu = 0.5863$, $\lambda = -2.9315$. According to the calculated values μ and λ determine $x_0 = 0.4332$, $x_1 = 0.1173$, $x_2 = 0.1629$, $x_3 = 0.0687$, $x_4 = 0.0896$, $x_5 = 0.1283$. Optimal solution $X^* = \{0.1173, 0.1629, 0.0687, 0.0896, 0.1283\}$. The share of risk-free projects $X_0 = 0.4332$. The project Tricolor Internet has the maximum share of funding $X_2 = 0.1629$. Project Open Sky has a minimum share of funding $X_3 = 0.0687$. Dispersion of information system projects $Z = 1.437$.

5 Results of research

The results of the conducted research allowed to draw the following conclusions.

1. To determine the optimal project of information system in conditions of partial indeterminacy of the applied mathematical model of nonlinear programming.
2. The optimal solution of a nonlinear mathematical model is determined by the method of Lagrange multipliers.
3. The use of the research results allows to reduce financial costs and time costs at the design stage of information systems and to raise validity of decisions in conditions of partial uncertainty.
4. The results can be used in the design of information systems and further studies.

Sources

1. Gvozdeva T. V. Design of information systems. / Gvozdeva T. V., Ballod B. A. – Rostov-on-Don: Fenics, 2009. – 508 p.
2. Semakhin A.M. The Gauss-Jordan's method in modeling of information system.//Young Scientist USA. Vol. 1 – Aubern, 2014 – p. 133-142. USA. ISBN 978-1-312-13268-9.
3. Semakhin A. M. Nonlinear programming in modeling of information systems//Bulletin of the Kuzbass state technical University. – 2016. – №1 (113). – p. 187-191, ISBN 5-89070-074-X.
4. Semakhin A. M. The method of modified Jordan elimination in modelling information systems. MMK 2015. Masaryk Conference for Ph. D. Students and Young

Researchers, Volume VI, december 14-18, 2015. – Hradec Kralove, The Czech Republic, p. 2284-2292, ISBN 978-80-87952-12-2.
5. Semakhin A. M. The method of Lagrange multipliers in modelling of information systems. MMK 2016. Masaryk Conference for Ph. D. Students and Young Researchers, Volume VII, december 12-16, 2016. – Hradec Kralove, The Czech Republic, p. 1494-1503, ISBN 978-80-87952-17-7.
6. Kolemaev V. A. Mathematical economics. – M.: UNITI-DANA, 2005. – 399 c.
7. Kuznetsov A. V., Holod N.I. Mathematical programming. – Minsk Higher school, 1984. – 221 p.
8. Taha H. A. Operations research: an introduction. Seventh edition. – M.: Publishing house "Williams", 2005. – 912 p, ISBN 5-8459-0740-3.
9. Bazaraa M., Shrali H., Shetty C. Nonlinear Programming Theary and Algorithms, 2nd ed. – Wiley, New York, 1993. – 853 p.
10. Zangwill W. I. Nonlinear programming: A unified approach. – Englewood Cliffs, New Jersey: Prentice-Hall, 1969. – 312 p.
11. Himmelblau David M. Applied nonlinear programming. – McGraw-Hill, 1972. – 498 p.
12. Beightler C., Philips D. Wilde D. Foundations of optimization, 2nd ed. Prentice Hall, Upper Saddle River, N. J., 1979. – 245 p.
13. Rardin D. Optimization in operations research, Prentice Hall, Upper Saddle River, N.J. 1998. – 285 p.
14. Fiacco Anthony V., McCormick Garth P. Nonlinear programming, SIAM, 1990. – 210 p.
15. Gill Philip E., Murray Walter, Wright Margaret H. Practical optimization. Academic Press. London, 1981 – 512 p.
16. Ravindran A., Reklaitis G. V., Ragsdell K. M. Engineering optimization: Methods and applications. Willey India Pvt. Limited, 2006. – 688 p.

Contact

Associate Professor Andrey Semakhin, Ph.D.
Kurgan State University
640020, Sovetskay Street, 63, building 4, Kurgan, Russia
Tel: 8 (3522) 65-49-84;
Fax (423) 46-22-51
e-mail: semakhinandrew@yandex.ru

UMELÁ INTELIGENCIA V NOVÝCH MÉDIÁCH

ARTIFICIAL INTELLIGENCE IN NEW MEDIA

Michaela Stopková

Abstrakt
Umelá inteligencia už nepredstavuje len súčasť vedecko-fantastickej fikcie prezentovanej vo filmoch. Začína tvoriť novú etapu vo vývoji informačných technológií a svoje uplatnenie nachádza aj v nových médiách. Snaží sa zefektívniť primárnu úlohu médií ako prostriedku komunikácie a šírenia informácií. Predstavuje istú formu automatizácie a odstraňovania ľudskej činnosti z tvorivého procesu. Upravuje či vytvára svoju produkciu výhradne podľa šablóny, alebo jednoduchých algoritmov, ktoré získava v procese vzdelávania a napodobňovania originálnych diel. Integruje sa do všetkých typov médií. Veľkú úlohu zohráva v triedení a poskytovaní informácii. Príspevok definuje umelú inteligenciu a odkazuje na jej súčasne pôsobenie v rozličných druhoch médií. Poukazuje na to, akými spôsobmi sa umelá inteligencia podieľa na tvorbe mediálnych obsahov a akou formou sa pod jej vplyvom premieňa mediálna produkcia.
Kľúčové slova: algoritmy, informačné technológie, nové média, umelá inteligencia,

Abstract
Artificial intelligence is no longer just part of the science fiction presented in the films. It has begun to represent a new stage in the development of information technology and its application is also found in new media. It tries to streamline the primary role of the media as a means of communicating and disseminating information. It is a form of automation and removing human activity from the creative process. It modifies or produces its production explicitly according to the template or the simple algorithms which it acquires in the process of education and imitation of original works. It integrates into all types of media. It plays a big role in sorting and providing information. The contribution defines artificial intelligence and refers to its simultaneous action in various types of media. It points out how artificial intelligence contributes to the creation of media content, and what forms of media are transformed under its influence.
Key words: *algorithms, information technologies, new media, artificial intelligence,*

1 ÚVOD

V súčasnosti rastie tempo používania algoritmov umelej inteligencie vo všetkých procesoch, ktoré môžu výrazne ovplyvniť život ľudí, a to v práci, doma i pri cestovaní. Umelá inteligencia do určitej miery napodobňuje štruktúru ľudského mozgu a snaží sa byť nápomocná v mnohých oblastiach ľudského života. Svoje pôsobenie začína nachádzať aj v oblasti médií, angažuje sa v spravodajstve, filme, prejavuje sa v oblasti sociálnych sietí. Zohráva dôležitú úlohu v sprostredkovaní informácií prostredníctvom vyhľadávačov. Pôsobí na všetkých úrovniach komunikácie a zahŕňa akvizíciu, ako aj manipuláciu, uchovávanie a distribúciu informácií. Upravuje či vytvára svoju produkciu výhradne podľa šablóny, alebo jednoduchých algoritmov, ktoré získava v procese vzdelávania a napodobenia originálnych diel.

Médiá prevádza do číselných dát a zahŕňa ich číselnú reprezentáciu, modularitu, automatizáciu, variabilitu a kultúrne prekódovanie. Pod jej vplyvom dochádza k zmene mediálnej produkcie.

2 NOVÉ MÉDIÁ A UMELÁ INTELIGENCIA

V súčasnosti sa môžeme stretnúť s množstvom definícií nových médií. Súvisí to hlavne s ich neprehliadnuteľnou rozmanitosťou, ktorá spolu s ich premenlivosťou komplikuje akúkoľvek snahu o ich jednoznačnú definíciu. Medzi nové médiá môžeme zaraďovať nesčíselné množstvo mediálnych technológií – od infraštruktúry, ako je internet, cez materiálne artefakty, ako je osobný počítač, tablet alebo mobilný telefón, až po sieťové protokoly (web, ICQ, ftp a. i.) a konkrétne webové služby (Google, YouTube, Facebook, G+, Twitter) alebo softvérové aplikácie (počítačové hry, prehrávače videosúborov, e-mail, webové prehliadače, Messenger, hudobné programy a pod.) (Macek 2011, s. 12-13). Osobitosť nových médií sa odvíja primárne práve od ich technologickej špecifickosti. Spájajúcim prvkom nových médií je ich digitálna povaha – tá celkom razantne určuje jednak všeobecnejšie vlastnosti nových médií ako technických, ako aj textových artefaktov[1]. Technologická platforma dovoľuje médiám ich vzájomné prepájanie. Nové média môžu preto v sebe integrovať médiá primárne (hlasovú komunikáciu prostredníctvom služieb Skype alebo FaceTime), sekundárne (písanú interpersonálnu komunikáciu prostredníctvom e-mailu alebo četovacích protokolov, ako je ICQ, Messenger a pod.), aj terciárne (spravodajské portály, internetové vysielanie televíznych a rozhlasových staníc), ktoré dopĺňajú o špecifické formy komunikácie ako je napríklad skupinová interakcia v prostredí online sociálnych sietí alebo hranie počítačových hier (Macek 2011, s. 14).

Nové média sa nachádzajú v etape, ktorú môžeme dnes označiť ako postmediálna doba (Belting 2000, s. 204). Toto obdobie je charakteristické konvergenciou a hybridizáciou médií; zrovnoprávnením všetkých umeleckých médií (tradičných aj nových); voľným pohybom umelcov naprieč nimi; oslabením vzťahu médium/obsah v prospech kódu, skriptu, scenára či algoritmu umeleckej tvorby. Symptómom tohto trendu sú funkcie informačných technológií a s nimi spojená umelá inteligencia, ktorá pôsobí ako univerzálny stroj, ku ktorému sa začína poukazovať každá produkcia postmediálnej doby: nielen obrazov, textov a zvukov, ale aj „jazykov“ médií a ich organizačných stratégií.

Informačné technológie fungujú ako programovateľné médiá, umožňujúce svojim užívateľom vstupovať do naprogramovaných procesov v reálnom čase. Tvorba funguje na princípe zapisovania procesov v podobe sledov krokov, čiže algoritmov a formálneho popisu akcie. Integruje sa do procesov súčasnej kultúry a spoločnosti, do novo formujúcich sa procesov inštitúcií, ako aj kultúrnych objektov v ich blízkosti. Využíva pritom prístupy akademikov z humanitných a sociálnych vied a spôsoby tvorby/výskumu počítačovej vedy, umenia a dizajnu (Mathew 2008, s. 27). Umelá inteligencia predstavuje istú formu automatizácie a odstraňovania ľudskej činnosti z tvorivého procesu. Vedie k presvedčeniu, že ide o dokonalú symbiózu a naplnenie vízií o smrti autora a posilnenie úlohy interpreta. Upravuje či vytvára svoju produkciu výhradne podľa šablóny alebo jednoduchých algoritmov, ktoré získava v procese vzdelávania, analýzy a napodobenia originálnych diel v snahe o vytvorenie vyššieho stupňa automatizácie neomediálnej tvorby. Uplatňuje sa pri nej kultúrne transkódovanie, ktoré participuje na úrovni reprezentácií patriacej ľudskej kultúre a na úrovní kódu, ktorému rozumie počítač. Na jednej rovine tak komunikuje s ostatnými kultúrnymi obrazmi, na inej vedie dialóg s inými počítačovými súbormi (Mathew 2008 s. 27-46).

Nové média s prvkami umelej inteligencie majú takisto povahu modulárneho a variabilného diela, ktoré podlieha počítačovej automatizácii a transkódovaniu. Tieto zmeny

[1] Médiá sa chápu ako texty, ktoré prenášajú oznámenie (ktoré môžu mať formu nielen jazykovú, ale aj zvukovú, vizuálny alebo audiovizuálnu).

redakčnej práce pod záštitou umelej inteligencie spätne ovplyvňujú inštitúciu, teda jej prácu so zamestnancami, vnútorné normy a kódexy, rýchlosť výroby a pod., a takýmto zásadným spôsobom môžu pretvoriť obsah v „tradičnom médiu“.
Nové médiá v spolupráci s umelou inteligenciou odkazujú na skúsenosti nového druhu, a to napr. v novej práci s textom, jeho novým formám a žánrom, novým vzorcom prezentácie a mediálnej produkcie. Prinášajú tiež možnosti novej reprezentácie sveta a nových vzťahov medzi subjektmi a mediálnymi technológiami, novú skúsenosť stelesnenia a identity (Social bots, tzn. fiktívne robotické profily na sociálnych sieťach), nové vzorce organizácie a produkcie.

3 UMELÁ INTELIGENCIA

Otázkou zhotovenia umelých a inteligentných systémov sa zaoberali mnohí filozofovia dávno pred vynájdením počítačov. S umelo vytvorenými objektami disponujúcimi určitým stupňom inteligencie sa môžeme dokonca stretnúť už aj v povestiach a bájach, ktoré siahajú do antického Grécka. V najstaršej povesti Hefaistos, boh ohňa a kolárstva, vytvoril medeného obra Talóna, ktorého úlohou bolo strážiť pobrežie Kréty. Tento obor disponoval do značnej miery určitým stupňom intelektu. V žilách mu kolovala horúca olovená krv a aby mu nevytiekla, mal žilu na členku zatvorenú medeným klincom (Zelinka 2009).
Za zlom umelej inteligencie môžeme považovať rok 1997, v ktorom počítať firmy IBM Deep Bue porazil vtedajšieho majstra šachu Garryho Kasparowa. Počítač vtedy preukázal, že dokáže udržať krok s ľudskou inteligenciou. Od tohto obdobia sú počítače schopné stále prekonávať ľudský intelekt. Pretože umelá inteligencia má nad ľudskou rasou náskok vďaka veľkému množstvu dát, ktoré je schopná uchovávať, ale i prechádzať. Na druhej strane ale môžeme konštatovať, že umelá inteligencia „premýšľa“ inak ako človek. Ľudský mozog neustále analyzuje rýchle meniace sa obrazy a rýchlo vyhodnocuje symboly, napr. či je červená škvrna z diaľky napríklad fľakom, obrazom, predmetom a pod. Takýto spôsob uvažovania si umelá inteligencia ešte celkom neosvojila. Preto vzniká otázka, čo môžeme považovať za umelú inteligenciu. V súčasnosti existuje množstvo vymedzení obsahu tohto pojmu. Medzi najstaršiu charakteristiku patrí aj relatívne známa definícia od Marvinama Inského z roku 1967, ktorý charakterizoval umelú inteligenciu ako vedu o vytváraní strojov, alebo systémov, ktoré budú pri riešení určitej úlohy používať taký postup, ktorý by ľudia považovali za prejav jeho inteligencie, a to takým spôsobom, že dokáže zložitosť ohodnotiť počtom všetkých variant, ktoré pripadajú pri riešení do úvahy (Mařík 1993. s. 17). V roku 1991 Elanie Richová definovala umelú inteligenciu takto: „Umelá inteligencia sa zaoberá tým, ako počítače riešia úlohy, ktoré dnes zatiaľ lepšie zvládajú ľudia.“ (Mařík 1993. s. 17-18). Stretnúť sa môžeme aj s charakteristikou, že umelá inteligencia je schopnosť človekom vytvorených strojov emulovať a simulovať ľudské metódy pre deduktívnu a induktívnu akvizíciu a aplikáciu znalostí a odvodzovania.
Umelá inteligencia je človekom umelo vytvorený systém vyznačujúci sa schopnosťou rozpoznávať predmety, javy a situácie, analyzovať vzťahy medzi nimi, a tak vytvárať vnútorný model sveta, v ktorom tieto systémy existujú, a na tomto základe tak prijímať účelné rozhodnutia, za pomoci schopnosti predvídať dôsledky týchto rozhodnutí a objavovať nové zákonitosti medzi rôznymi modelmi alebo ich skupinami (Kotek 1983 In Mařík 1993, s. 18-19).

3.1 Paradigma v umelej inteligencii

V súčasnosti sa môžeme stretnúť s dvomi pragmatickými prístupmi umelej inteligencie, a to tradičnej a novej. Tradičná paradigma umelej inteligencie sa tiež označuje ako logicko-symbolická, symbolicky-reprezentačná, algoritmická alebo komputacionalistická. Predstavuje modelovanie na počítači, pričom počítač je považovaný len za prostriedok tvorby algoritmov

a programov (Havel 2004). Tradičný prístup vychádza z predpokladu symbolickej reprezentácie poznatkov ako aj prostredia a z existencie mechanizmu plánovania aktivít na základe reprezentovaných poznatkov (Kelemen 1994, s. 31). Tento prístup predpokladá centralizovanú jednotku, do ktorej sa zbiehajú všetky zakódované poznatky a ktorá obsahuje preddefinované algoritmy rozhodovania o aktivitách. Nová umelá inteligencia sa zameriava od jednoduchých reakcií živých alebo umelých systémov, smerom ku komplexnejším prejavom týchto systémov. Pričom je charakterizovaná emergentnou funkcionalitou. Radiálne fungovanie agentov môže vniknúť samovoľne v rámci intenzívnych interakcií s prostredím, prípadne dekompozíciou na úrovni úloh, tzn. že systém je zhotovený len na určitý úkon, za ktorého splnenie zodpovedá s istým stupňom reaktivity, ktorá je bezprostrednou reakciou na aktuálny stav prostredia. Vo všeobecnosti môžeme konštatovať, že máme do činenia s rozličnými stupňami a úrovňami umelej inteligencie, a to tzv. silnou a slabou. Deliacu čiaru predstavuje okrem iného ukotvenosť symbolov. Počítače poväčšine manipulujú so symbolmi bez toho, aby poznali ich zmysel. Plná, tzv. všeobecná, silná umelá inteligencia by mala byť naopak schopná vytvárať si vlastný zmysel symbolov a významov pre všetko, s čím sa stretne. Takýmto spôsobom sa stane skutočne nezávislou na človeku, ktorý význam činnosti výpočtovým systémom iba dopĺňal. Protikladom silnej umelej inteligencie je slabá umelá inteligencia – zatiaľ čo koncept silnej umelej inteligencie verí v replikáciu ľudskej mysle do počítača, koncept slabej umelej inteligencie sa zameriava iba na modelovanie princípu ľudskej mysle alebo jej čiastkových prejavov, a to predovšetkým so zameraním na logiku.

4 REMEDIÁCIA A UMELÁ INTELIGENCIA

V nových médiách sa môžeme stretnúť s pojmom remediacía (Bolter, Grusin 2000, s. 20), ktorá definuje procesy, v rámci ktorých sa k sebe vzťahujú staršie a novšie médiá, a v ktorých dochádza k vzájomnému požičiavaniu formálnych i obsahových prvkov. Proces remediácie neprebieha len smerom od staršieho médiá k novšiemu, ale aj naopak. Môžeme predpokladať, že užívatelia prostredníctvom remediácie budú rozumieť novším médiám ľahšie a jednoduchšie si tak zvyknú na pravidlá ich používania, pretože remediácia vychádza z konvenčných, teda ustálených, kultúrnych pováh mediálnych foriem.Prostredníctvom remediácie môžeme nájsť uplatnenie umelej inteligencie aj v starších/klasických médiách.

4.1 Maľba

V procese tvorby obrazov umelá inteligencia zastáva väčší pokrok ako pri iných odvetviach médií. Jej činnosť môžeme rozdeliť do dvoch skupín, návrh umelých robotických rúch, ktoré tvoria umenie, a programy, algoritmy, ktoré generujú nové umenie, prípadne napodobňujú iných autorov v snahe o reprodukciu nových diel.

Londýnsky umelec Patrik Tresset (2014) vyvíja roboty, ako aj a autonómne výpočtové systémy, ktoré dokážu produkovať kresby, maľby i animácie. Jeho stroje tvoria robotické ruky, ktoré označuje číslom a menom Paul. Prvá verzia Paula z roku 2011 bola exponovaná v galérii Soho. Jeho tvorba začínala skenovaním miestnosti, v ktorej detektoval ľudské tváre pomocou technológie Gáborové vlnky 109. Na základe týchto obrysov potom robotické rameno perom načrtlo základy tváre a doplnilo ju tieňovaním tak, aby zodpovedala predlohe.

Pindar Van Arman, umelec a softvérový vývojár, pracuje na výrobe maľujúci robotov, ktorý z počiatku maľovali štetcom body, ktoré následne spájali do liniek. Jeden z posledných Armanových robotov z roku 2017 s názvom 113 je o mnoho pokrokovejší: skladá sa totiž z kresliacej hlavy, 3D tlačiarne a z dvoch robotických ramien. Zároveň používa strojové učenie a umelú inteligenciu k vytváraniu originálnych umeleckých diel (Anon 2016).

Spoločnosť Facebook a výskumníci z oblasti umelej inteligencie z Rutgersovej univerzity sa zamerali na tvorbu špeciálneho algoritmu, ktorý mal generovať originálne obrazy. Algoritmus fungoval do istej miery ako siete neurónov v našom mozgu. Jedna časť mala navrhnúť

riešenie problému a druhá ho mala posúdiť, až kým sa nedosiahol požadovaný výsledok. Časť takejto umelej inteligencie bola obohatená o vyše osemdesiat tisíc skutočných obrazov vytvorených ľuďmi a jej úkonom bolo posudzovať, čo je umelecké dielo a čo nie. Úlohou druhej časti bolo generovať náhodné obrazy. Takýmto spôsobom vznikli originálne výtvarné diela, ktoré výskumníci dali posúdiť verejnosti spolu s obrazmi ľudských maliarov. Výtvory umelej inteligencie získali vo všeobecnosti mierne vyššie hodnotenia ako ľudské maľby (David 2017).

V roku 2016 Microsoft v spolupráci s univerzitami a holandskými múzeami navrhol počítačový systém, ktorý podrobne analyzovali takmer 350 Rembrandtových diel, aby odpozeral jeho známky rukopisu, a vygeneroval nový obraz. Zameral sa na motívy, odtiene, kompozície, ťahy štetcom a komornú atmosféru diel. Výsledkom bol portrét muža zo 17. storočia, ktorý obsahuje viac ako 148 miliónov pixelov a využíva 168 263 častí z jeho existujúcich obrazov. Jeho tvorba trvala 18 mesiacov a výsledok bol vytlačený pomocou 3D tlačiarne a UV atramentu (Gigel 2016). Pre umelú inteligenciu nebolo zložité vyčítať motív z minulých čias. Muža prezentoval beloch v stredných rokoch, s fúzami a briadkou, odetý do tmavého oblečenia. Celú kompozíciu a detaily portrétu navrhol počítač z dát, ktoré mal dôsledne naštudované z existujúcich diel.

4.2 Literatúra

Umelá inteligencia angažuje aj v tvorbe literárnych umeleckých diel. Prvá novela vytvorená počítačom sa nazýva True Love. Autorom projektu bol ruský autor Alexander Prokopovich. Ten v spolupráci s petrohradskými softvérovými vývojármi vytvoril program s názvom PC Writer 1.0. pre účel zhotovenia knihy. Tvorcovia najprv navrhli ústrednú postavu, inšpirovanú Annou Kareninou a definovali jej vzhľad, slovník a psychologický profil. Umelá inteligencia sa ďalej učila štýlom písania rôznych slávnych spisovateľov a potom napísala novelu True Love počas troch dní (Anon 2017).

The Day A Computer Writes A Novel, je názov novely, ktorá vyhrala v roku 2016 tretiu cenu v súťaži japonskej literárnej akadémie Nikkei Hoshi Shinichi Literary Award. Umelá inteligencia, ktorá túto novelu napísala, bola pri práci vedená tímom vedcov z japonskej univerzity. Tí do nej implementovali vybrané slová a vety, určili parametre, na základe ktorých mala autonómne dielo vytvoriť (Anon 2017).

V posledných rokoch bola literárna cena Hoshi Shinichi sprístupnená aj žiadateľom, ktorí nie sú ľudia (konkrétne programom AI). Nehumanoidné diela predstavovali celkovo 11 z 1 450 podaní.

Spoločnosť Google v rámci vývoja umelej inteligencie vytvorila (okrem iného) v roku 2016 unikátnu neurónovou sieť, ktorá vie tvoriť poéziu v prirodzenom jazyku. Do tejto siete, v spolupráci so Stanfordskou a Massachusettskou univerzitou, bolo vložených viac ako jedenásť tisíc nepublikovaných kníh. Následne boli do systému vložené dve vety, na základe ktorých mala umelá inteligencia vytvoriť poéziu. Cieľom výskumu bolo naučiť AI komunikovať prostredníctvom prirodzeného jazyka (Burgess 2016).

V spolupráci s literárnym projektom Gutenberg Google napríklad naplnil inú neurónovou sieť 123 dielmi slávnych, zosnulých autorov a nechal túto sieť vygenerovať pokračovanie ich diel. Pozoruhodné je, že táto generovaná poézia je v podstate nerozoznateľná od poézie vytvorenej človekom.

4.3 Editácia a tvorba článkov

Veľký pokrok v oblasti editácie a tvorby článkov prostredníctvom robotov môžeme zaznamenať aj na internete. Viac ako 8,5% z celkového počtu článkov na Wikipédií predstavujú články robotov. Tento počet sa v súčasnosti odhaduje na 40 miliónov príspevkov vo všetkých jazykoch. Autorom článkov je program Lsjbot, ktorého autorom je Švéd Sverker

Jogansson. Počítačový program zbiera informácie z rôznych dôveryhodných zdrojov a nahráva ich na Wikipédiu. Špecializuje sa na množstvo okrajových a ľuďmi zanedbávaných oblastí a tém, ako sú napríklad málo známe druhy motýľov alebo napríklad malé obce na Filipínach (Guldbrandsson 2013).
V súčasnosti softvérové písanie článkov prostredníctvom robotov preniká aj do profesionálnej sféry, najmä do oblasti ekonomiky, politiky a športového spravodajstva. Robotov používajú napríklad časopisy Forbes, denník Los Angeles Times. Zámer zapojiť softvérového robota do písania aktualít nedávno oznámila aj agentúra Associated Press. Zatiaľ sa nejedná o komplexné písanie článkov. Ide o nedokončené texty, v ktorých niektoré informácie chýbajú a programy do nich iba vkladajú dáta zozbierané iným softvérom a z iných databáz, napríklad počty hlasov, výsledky športových podujatí a pod. Umelá inteligencia je pre žurnalistov údajne len nápomocnou cennou službou, ktorá redakcii pomáha získať čas spracovaním číselných údajov a faktov.

4.4 Hudba

Umelá inteligencia sa podieľa aj na tvorbe hudby. Prvý projekt umelej inteligencie ERC (European Research Council) predstavoval Flow Machines od spoločnosti Sony. Zaoberal sa vývojom systémov, ktoré sú schopné samostatne alebo v spolupráci s umelcami vytvárať hudbu. Táto hudba predstavuje spojenie jednotlivých umelcov, napr. Johanna Sebastiána Bacha či Beatles, alebo sa snaží o ich napodobenie. Prvá pieseň vytvorená týmto projektom s názvom Daddy 's Car bola publikovaná v roku 2016 (Flow Machines 2017).
Spoločnosť Google sa realizuje aj v tvorbe umenia. Projekt Magenta127 používal open source softvér s názvom Tensor Flow, ktorý umožňoval umelcom spojiť ich tvorbu s umelou inteligenciu (Magenta 2017). Google v júni roku 2016 predstavil deväťdesiat sekundovú klavírnu melódiu, ktorú vytvorila neurónová sieť.
Koncom augusta roku 2017 odštartoval novú etapu tvorby hudby album s názvom I AM AI (v preklade: ja som umelá inteligencia). Všetky piesne sú dielom umelej inteligencie menom Amper (Artificially intelligent Music PERformer) v spolupráci so speváčkou Taryn Southern (Amper 2017). Najznámejšiu pieseň v kolaborácii s umelou inteligenciou predstavuje song Break Free, v ktorom Taryn naspievala text a všetko od klipu po post produkciu zvuku realizovala Amper.

4.5 Film

Limity umelej inteligencie sa posúvajú aj vo filmovej produkcii. Režisér Oscar Sharp (2017) a technológ Ross Goodwin prihlásili do tohtoročnej súťaže 48 Hour Film Challenge film, ktorého scenár napísala umelá inteligencia menom Jetson. Neurónové siete dostali ako podklad jednu repliku dialógu, vedeckú tému a návrh na rekvizitu. Výsledkom bol krátky film Sunspring. Dej a dialógy síce nedávajú zmysel, napriek tomu nútia diváka zamyslieť sa, či tam umelá inteligencia predsa len neskryla nejaký význam.

4.6 Počítačové sledovanie filmov Matrix 2013

Počítačové sledovanie filmov Matrix 2013 bolo navrhnuté na porovnávanie sledovania filmov medzi umelou inteligenciou a človekom. Cieľom toho projektu bolo zistiť, ako sa počítačové vízie líšia od vízií človeka a čo tento rozdiel odhaľuje o našej kultúrne. Snažil sa získať odpoveď na otázku, prečo sledujeme konkrétne prvky vo filme vo vzťahu k umelej inteligencii a pýtal sa, či bude systém bez nášho zmyslu pre rozprávanie alebo historických modelov videnia sledovať to isté (Grosser 2013).

5 SÚČASNÝ STAV VYUŽITIA UMELEJ INTELIGENCIE V NOVÝCH MÉDIÁCH A INFORMAČNÝCH SYSTÉMOCH

5.1 Internet

Internet, ktorý môžeme považovať za jednu obrovskú distribuovanú databázu médií, zohral svoju úlohu pri kryštalizácii novej situácie v informačnej spoločnosti, a to v prebujnenosti informácií všetkého druhu. Jednou z reakcií softvérových „agentov" bola automatizácia pri vyhľadávaní relevantných informácií. Vyhľadávanie informácií môžeme definovať ako nájdenie materiálu (zvyčajne dokumentu) neštruktúrovaného charakteru (zvyčajne textu) z rozsiahlej zbierky informácií (zvyčajne uložených na počítačoch), spĺňajúce informačnú potrebu hľadajúceho (Manning, Raghavan, Schütze 2008, s. 1). Vyhľadávanie informácií patrí medzi primárnu úlohou vyhľadávačov, ktoré sa snažia spĺňať potreby informačnej spoločnosti. Tie sa do značnej miery podieľajú na sprostredkovaní poznania. Nepriamo posilňujú fragmentáciu a povrchnosť informácií, pretože cieľový výstup vzniká generovaním informácií uverejnených na rozličných miestach na internete. Takto vzniká potencionálna hrozba odtrhnutia sa od sociálnej reality a zvyšuje sa miera konštrukcie virtuálneho sveta, o ktorom vyhľadávače prostredníctvom umelej inteligencie referujú, a z ktorých čerpajú. Živí aktéri, t. j. používatelia vyhľadávačov môžu hrať iba rolu pasívnych príjemcov, pretože strácajú spätnú väzbu, ktorá je utláčaná ideológiou rýchlosti a aktuálnosti, ktorými umelá inteligencia disponuje. Samozrejmou súčasťou nášho poznania o svete sa pritom vďaka médiám poväčšine stáva niečo, čo nevychádza a ani nemôže vychádzať z priamej skúsenosti – či už preto, že ide o osoby a fenomény geograficky vzdialené, alebo preto, že sa jedná o figúry a reálie zreteľne fiktívne.

Internetové vyhľadávače tvoria v súčasnosti internetové programy, tzv. „(ro-)boti", ktorí prehľadávajú internetové stránky a vytvárajú z nich vlastné textové katalógy. Tieto stránky si sťahujú do svojich databáz, z ktorých ich potom ponúknu podľa kľúčových slov používateľom internetu. Preto pre záznam dát vzťahujúcich sa na objekty z reálneho sveta zohráva dôležitú úlohu jazyk, lebo kľúčové slová a výrazy môžu len okrajovo predstavovať daný objekt, prípadne dokument a nemusia komplexne zachytávať súvislosti a vzťahy s inými termínmi. Reprezentácia schémy sa preto obohacuje o využívanie znalostí. Okrem vyššie spomínaných prvkov väčšina nástrojov pre vyhľadávanie informácii používa aj matematické pravdepodobnosti. Rozhodnutie pre konkrétnu akciu (poskytnutie danej informácie) zakladá na heuristike alebo empirickom hodnotení danej funkcie.

Za najznámejšieho robota vyhľadávačov môžeme považovať Googlebot, ktorý pripravuje dáta pre vyhľadávač Google. Základné údaje o stránke získava z tzv. meta tagov, ktoré obsahujú základné údaje ako názov stránky, krátky popis, jazykové verzie a pod. To realizuje prostredníctvom súboru robots.txt, ktorý sa umiestňuje zvyčajne do koreňovej zložky stránky. Tento odkaz dokážete napríklad aj zakázať robotom prístup k určitým súborom alebo adresárom, ktoré nechcete aby vyhľadávač zaindexoval.

5.2 Sociálne siete

Na sociálnych sieťach sa môžeme stretávať so Social bot (z ang. sociálny robot), ktoré predstavujú automatické alebo poloautomatické počítačové programy, ktoré napodobňujú človeka a ľudské správanie v online prostredí sociálnych sietí (Wagner et al. 2012). Sociálni boti môžu disponovať rozličným stupňom a úrovňou inteligencie, môžu obsahovať iba bezduché príkazy, ktoré im zadávajú ich vývojári, pridávať preddefinovaný komentár ku konkrétnemu hashtagu alebo sa môžu samostatne a nezávisle rozhodovať na základe virtuálneho prostredia, v ktorom sú aktívni a vykonávať všetky online aktivity bežných ľudí, tzn. lajkovať, komentovať príspevky na sociálnych sieťach, sledovať užívateľov a pod.

Známy príklad sociálneho robota predstavoval na Twitteri bot Tay, ktorý mal komunikovať s mladými ľuďmi a získavať vedomosti postupným učením sa z reálnej komunikácie. Žiaľ,

užívatelia začali s ním komunikovať s rasistickým podtónom a z mierumilovného bota sa stal rasista šíriaci nenávistné správy a Microsoft ho bol nútený odstrániť (Kapusta 2016).
Sociálne siete predstavujú pre robotov dobré útočisko, pretože dokážu s malým úsilím osloviť veľkú skupinu ľudí. Môžu rozširovať svoje osobné názory, postoje a informácie o udalostiach z okolitého sveta. Pričom primárnou úlohou robota nie je zahltiť sociálne siete informáciami, respektíve príspevkami, pretože by to mohlo viesť k informačnému preťaženiu príjemcov. Dôležitejšou úlohou robotov je vytvoriť ilúziu kvality prostredníctvom pozitívnej/ negatívnej spätnej väzby, prípadne, prezentovať istý názor vykreslením seba ako fyzickej osoby, ktorá je spokojná/ nespokojná s daným tovarom, politikom alebo službou, a tým manipulovať verejnú mienku.

5.3 Cheats bot

Facebook rovnako ako Microsoft a Google experimentuje s četovacími robotmi (chatbots), ktorí majú v rámci komunikácie postupne nahradiť bežné internetové služby. Tým môžu byť online objednávky, rezervácie hotelov alebo nákupy leteniek. Aktívnych robotov si môžeme všímať už v Gmaili. Robot sleduje obsah odosielanej správy a odosielateľa upozorňuje na chýbajúce doložky v správe, napr.: „V správe ste napísali v prílohe, nie sú však priložené žiadne súbory. Chcete napriek tomu správu odoslať?“ V blízkej budúcnosti by mal byť robot schopný odpovedať na otázky: Aká je otváracia doba centra? Dá sa tam parkovať?

5.4 Prekladače

Nová generácia strojového prekladu sa realizuje prostredníctvom neurónových sietí a tzv. hĺbkového učenia. Na základe tohto aspektu dokážu prekladače lepšie porozumieť prekladanému textu, pretože vety prekladajú ako celok a nie ako jednotlivé frázy. Umelá inteligencia upustila zo systému frézového prekladania (PBMT – Phrase-Based Machine Translation), ktorý vetu rozkladal na slová a frázy a prekladal ich samostatne, ale využíva štatistický systém, ktorý porovnáva vložené dáta podľa vopred zadaných gramatických vzorcov. Prekladač využíva napríklad dáta z oficiálnych prekladov rovnakých dokumentov do viacerých jazykov. Jazyky spája do skupín, napríklad slovanských či indických. Postupne si umelá inteligencia vytvorila takzvané interlingua – vlastný univerzálny jazyk, ktorý používala na preklad medzi japončinou a kórejčinou (Holič 2017).

5.5 Počítačové hry

V počítačových hrách sa stretávame s robotmi rozličnej štruktúry. Podľa ich reakcií ich môžeme väčšinou rozdeliť do niekoľkých úrovní – preto hovoríme o hierarchickom riadiacom systéme. Na najvyššej úrovni sú akcie, ktoré sa viažu k dlhodobejším a strategickejším rozhodnutiam, napr. ktorým smerom sa hrdina hry na mape pri svojom prieskume vyberie, na aký konkrétny cieľ zaútočí, a akú pritom zbraň použije, prípadne, či začne ustupovať z boja. Najnižšia úroveň sa potom týka konkrétnych automatických úkonov, tzn. napr. kedy vystreliť, kam zamieriť, kadiaľ uhnúť strele protivníka a pod.

6 ZÁVER

Umelá inteligencia v nových médiách pôsobí modulárne, teda je kolekciou objektov, ktoré môžu byť v nich samy zahrnuté. Príznačná je pre ňu istá úroveň samostatnosti (v závislosti od miery intelektu), ktorá umožňuje automatizáciu mnohých operácií v tvorbe, manipuláciu a prístup k nim. Umelá inteligencia postráda fixáciu. Diela môžu existovať v nekonečnom množstve verzií. Uplatňuje sa u nej kultúrne prevedenie reprezentácií ľudskej kultúry, na ďalšej úrovni sa aplikujú kódy, ktorým rozumie počítač. Môžeme sa stretávať s koncom záruky totalizácie diel, zaisťujúcich stabilný význam (Lévy 2000, s. 137), ako aj s postupným princípom prekódovania klasických médií ako prirodzeného dôsledku interakcie kultúry a

digitálneho sveta. Logika počítačov sa vpisuje hlboko do kultúrnej úrovne médií už z toho dôvodu, že nové média sú vytvárané, rozširované, ukladané i archivované vďaka počítačom. Odráža sa to v spôsoboch, ktorými umelá inteligencia formuje náš svet, reprezentuje a sprístupňuje dáta i kľúčové operácie ovládané počítačovými programami (vyhľadávanie, triedenie, filtrovanie). Skrátka všetko, čo môžeme označiť za ontológiu, epistemológiu a pragmatiku počítača, to všetko ovplyvňuje kultúrna úroveň nových médií, ich organizáciu, nové žánre, ale aj obsah. Tieto základné princípy stoja v samotnom jadru novomediálnej zmeny, nech sa jedná o internet, mobilný telefón alebo digitálny fotoaparát. Ak si ich osvojíme, umožnia nám pochopiť, v čom sa nielen líšia od predchádzajúceho mediálneho prostredia, ale aj ako otvárajú nové možnosti ľudského konania.

Použitá literatúra

1. AMPER MUSIC. AI Music Composer. *Ampermusic.com* [online]. ©2017 [cit. 2017-11-15]. Dostupné z: https://www.ampermusic.com/
2. ANON. Can robots write stories? In: *Soyo Interactive* [online]. [cit. 2017-04-11]. Dostupné z: http://www.soyointeractive.com/EN/can-robots-write-stories/
3. ANON. Robotic Arms and the Beginning of cloudPainter. In: *Cloudpainter* [online]. Oct 12, 2016 [cit. 2017-10-11]. Dostupné z: http://www.cloudpainter.com /blog/2016/10/19/robotic-arms-and-the-beginning-of-cloudpainter
4. ANON. This Japanese Novel Authored By A Computer Is Scarily Well-Written. In: *Fast Company* [online]. Mar 28, 2016 [cit. 2017-17-11]. Dostupné z: https://www.fastcompany.com/3058300/this-japanese-novel-authored-by-acomputer-is-scarily-well-written
5. BELTING, Hans. *Konec dějin umění.* Praha: Mladá fronta, 2000. 244 s. ISBN: 80-204-0856-8
6. BOLTER, D. J., GRUSIN, R. *Remediation: Understanding New Media*. Cambridge: The MIT Press, 2000. 295 s. ISBN 0-262-02452-7
7. BURGESS, Matt. Google wants to predict the next sentences of dead authors. In: *Wired* [online]. Feb 26, 2016 [cit. 2017-04-21]. Dostupné z: https://www.wired.co.uk/article/google-author-create-artificial-intelligence
8. DAVID, Róbert. Umelá inteligencia už aj maľuje. In: *GLOBAL NEWS* [online]. Júl 27, 2017 [cit. 2017-25-11]. Dostupné z: http://www.globalnews.sk/veda-a-technika/ umela-inteligencia-uz-aj-ma-uje
9. FLOW MACHINES. Projects. *Flow-machines.com* [online]. ©2017 [cit. 2017-10-21]. Dostupné z: http://www.flow-machines.com/flowcomposer-composing-with-ai/
10. GIGEL, Milan. Autorom novej Rembrandtovej maľby je umelá inteligencia. In: *SME Tech* [online]. Apr 7, 2016 [cit. 2017-25-11]. Dostupné z: https://tech.sme.sk/c/2 0133311/autorom-novej-rembrandtovej-malby-je-umela-inteligencia.html
11. GROSSER, Benjamin. Computers Watching Movies (The Matrix). In: *Vimeo* [online]. Nov 11, 2013, 2 am [cit. 2017-17-11]. Dostupné z: https://vimeo.com/79 080564
12. GULDBRANDSSON, Lennart. Swedish Wikipedia surpasses 1 million articles with aid of article creation bot In: *Blogger* [online]. Jun 17, 2013 [cit. 2017-15-11]. Dostupné z: https://blog.wikimedia.org/2013/06/17/swedish-wikipedia-1-million-articles/
13. HAVEL, I. M. Přirozené a umělé myšlení jako filosofický problém. In: *Glosy.info* [online]. Dec 3, 2004, [cit. 2017-25-11]. Dostupné z: http://glosy.info/texty/priroze ne-a-umele-mysleni-jako-filosoficky-problem/5
14. HOLIČ, Dominik. Slovenčinu bude prekladať umelá inteligencia, spúšťa ju Google. In: *SME Tech* [online]. Apr 19, 2017, 10 am [cit. 2017-05-17]. Dostupné z:

https://tech.sme.sk/c/20511348/preklady-medzi-slovencinou-a-anglictinou-budu-lepsie-a-prirodzenejsie.html#ixzz50EDT6mDh
15. LÉVY, Pierre. *Kyberkultura: Zpráva pro Radu Evropy v rámci projektu „Nové technologie: kulturní spolupráce a komunikace.“* Praha: Karolinum, 2000. 229 s. ISBN: 80-246-0109-5
16. KAPUSTA, Matúš. Microsoft vytvoril bota pre Twitter, ľudia z neho spravili rasistu a xenofóba. In: *Môj Android* [online]. Mar 25, 2016 [cit. 2017-25-11]. Dostupné z: https://www.mojandroid.sk/microsoft-bot-tay-rasista-twitter/
17. KELEMEN, Jozef. *Strojovia a agenty*. Bratislava: Archa, 1994. 109 s. ISBN 80-7115-089-4.
18. MACEK, Jakub. *Úvod do nových medií*. Ostrava: in-PRESS CZ s. r. o., 2011. 71 s. ISBN: 978-80-7464-025-4
19. MAGENTA. Make Music and Art Using Machine Learning. *Magenta.tensorflow.org* [online]. ©2017 [cit. 2017-11-15]. Dostupné z: https://magenta.tensorflow.org/
20. MANNING, Ch., RAGHAVAN, D., SCHÜTZE, H. *Introduction to information retrieval. 1st ed.* Cambridge: Cambridge University Press, 2008. 544 s. ISBN: 9780521865715
21. MAŘÍK, Vladimír. *Umělá inteligence 1.* 1. vyd. Praha: Academia, 1993. 264 s. ISBN 80-200-0496-3
22. MATHEW, Fuller. *Software Studies: A Lexicon.* London: The MIT Press, 2008. 344s. ISBN 978- 0- 262- 06274- 9
23. OSCAR SHARP. *Thereforefilms.com* [online]. ©2016 [cit. 2017-11-15]. Dostupné z: http://www.thereforefilms.com/oscar-sharp.html
24. STRNAD, O., NOVÁK, L. *Preference ve výrobě*. 2. vydání. Ostrava: Linde nakladatelství, s.r.o., 2009. 102 s. ISBN 80-56899-65-4.
25. TRESSET, P., DEUSSEN, O. Artistically Skilled Embodied Agents In: *Goldsmith, University of London, UK* [online]. Apr 4, 2014 [cit. 2017-15-11]. Dostupné z: http://doc.gold.ac.uk/~ma701pt/patricktresset/wp_content/uploads/2015/03/Tresset_270467.pdf
26. ZELINKA, Ivan. Když se řekne umělá inteligence. In: *TRILOBIT* [online]. Dec 6, 2012, 4 pm [cit. 2017-25-11]. Dostupné z: http://trilobit.fai.utb.cz/kdyz-se-rekne-umela-inteligence
27. WAGNER, C., et al. When social bots attack: modeling susceptibility of users in online social networks. In: *Proceedings of the WWW* [cit. 2017-04-12]. Dostupné z: http://ceur-ws.org/Vol-838/paper_11.pdf

Kontaktní údaje

PaedDr. Michaela Stopková
Tatranská 365/16
059 92 Huncovce
Slovakia
Tel: 0950670897
email: stopkova.michaela@gmail.com

EXTRACTION OF INFORMATION FROM .NET EXECUTABLE FILES

Marek Milkovič

Abstract

The occurrence of malicious software written in .NET languages is rapidly increasing. Extracting the information out of .NET executable file is therefore necessary step in order to fight against this kind of malware. In this paper, we propose methods to extract information out of .NET executable files, which are safe and platform independent. These methods include data type reconstruction, but also extraction of unique features such as *TypeLib* identifier or *Module Version* identifier. We also point out mistakes that are being done in this field so far. After implementing the proposed methods, we compare it with already existing .NET disassemblers yielding very good results. Extracted information are planned to be used in creation of detection patterns, clustering and other areas at Avast Software.

Keywords: *reverse engineering, executable files, .NET, type reconstruction, typelib*

1 INTRODUCTION

According to studies, there was an increase of .NET malicious software (malware) from 2009 to 2015 by 1600% [8]. This gives us a motivation to reverse engineer and study .NET executable files so we can understand this kind of malware because if we understand it, we can create detection patterns that can match families of malware. We can cluster these executable files based on their features. We can train neural networks with clean and malware samples so it can help us triage what is malware and what is not. For all of this, we need to decide what in .NET executable file is important, prevalent or unique enough that would make make it all work. We need to find right set of features that would give us insight on how is this executable file different from other malware strains and what it has common with the samples in the same strain.

Despite that .NET executable files are stored in the same format as native Windows executable files, we cannot use the same information as with native ones because this native format is just used as an envelope that is almost the same across all .NET executable files. This paper describes a way how to extract information from .NET executables without relying on .NET framework because this might represent the potential risk. We also want our solution to be dependency free in order to work on all commonly used platform nowadays. This paper focuses on extraction of information that is important and unique enough such that it can be used to create detection pattern or cluster the samples. The features we focus on are class names, their methods, fields, properties *TypeLib* identifier and *Module Version* identifier.

2 EXECUTABLE FILE FORMAT

There are many file formats for executable files but we will be dealing with file format called PE (Portable Executable) [6] because it is used as a container for storing .NET executable files. Therefore, we need to understand some aspects of this format at first.

PE file format was introduced by Microsoft as successor to the old MZ format used on DOS. You may sometimes see it called also PE/COFF because it was derived from COFF format. It is still used to this day on modern Windows systems not only for executable files (EXE), but also dynamic-link libraries (DLL) or multilangual interface files (MUI). Figure 1 shows the basic layout of PE file.

At the end of the PE header, there are structures containing information about data directories, which are just parts of PE file with special semantics like imported symbols, exported symbols, debugging information or CLR (Common Language Runtime) header. The latter is used for storing the .NET metadata and serves for finding all the necessary information about the .NET executable encapsulated in PE file.

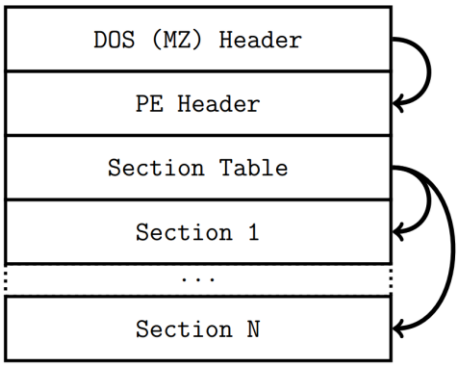


Figure 1: Structure of executable file in PE format.

CLR header points to metadata header which is no longer part of PE specification. It stores addresses of so-called *streams*. Each *stream* represents some specific type of data. Available streams are:

- *Metadata stream* - Information about classes, fields, methods and many more. Identified by name **#~** or **#-**. The latter one is not documented identifier for metadata stream but unofficial sources describe it as unoptimized stream [5]. Unoptimized streams use undocumented indirect tables which will be described latter in this chapter.
- *GUID stream* - Table of globally unique identifiers. Identified by name **#GUID**.
- *Blob stream* - Binary data such as encoded signatures of methods, types of attributes and many more. Identified by name **#Blob**.
- *String stream* - Strings such as name of classes, fields, methods and many more. Identified by name **#Strings**.
- *User string stream* - User defined strings without specific semantics. Identified by name **#US**.

Figure 2 shows the hierarchy of structures storing .NET information.
There are multiple tables in metadata stream but not all of them need to be present at the same time. Which tables are actually used is determined based on 64-bit word **Valid** written in metadata stream header. Each bit of this word represents some specific table and if it is set then also the associated table is present. Metadata stream header is followed by sizes of each table. As last come the tables that are stored sequentially.
Tables are made of records which contain attributes. Attributes in the table record can point to different streams when referencing name of the item e.g. name of the class references *string stream*. This index is 2-bytes in size if the length of *string stream* is less than 2^{16}, otherwise it is 4-bytes in size. The same applies also to indices pointing to other streams. Apart from references to other streams, attributes can also reference other tables. If the attribute points just to one specific table, then it works the same way as with the pointers to the streams. Table pointer can however be dynamic and can point to multiple tables (just one simultaneously). If the field can point to *n* tables, then we need $\lceil \log_2(n) \rceil$ bits to determine which table to use. The maximum size of the table for compact (2-byte) index size is then shrank down to $2^{16 - \lceil \log_2(n) \rceil}$.

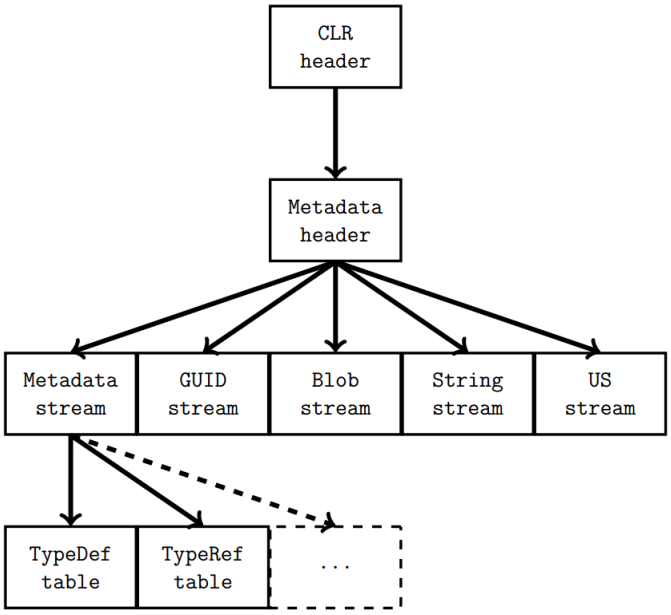


Figure 2: Hierarchy of structure in .NET executable file.

The *almost* complete list of all tables can be found in the standard ECMA-335 [2]. The almost means that there are some tables which are not even mentioned in the standard, but still can be found in the executable so be aware of these:

- Table #3 - **FieldPtr**
- Table #5 - **MethodPtr**
- Table #7 - **ParamPtr**
- Table #22 - **PropertyPtr**

These are so called indirect tables [5]. They are used in unoptimized streams. Methods, fields, parameters or properties which belong to the same parent type are kept together in their tables when stored in optimized stream. For unoptimized streams, rather than referencing child table directly, indirect table is used. Records in indirect tables are kept together as in direct table and they point to some item in their direct counterpart. That allows interleaving of items in direct tables.

2.1 TypeLib identifier

TypeLib identifier is a generic unique identifier used when interacting with your .NET library as COM (Component Object Model) interface. It is usually generated automatically when creating new .NET project in Visual Studio but can be also generated manually when Visual Studio does not provide you one. However, there may also be .NET modules without *TypeLib* identifier if author did not choose to create one or found its bytes in the file and replaced them with bogus values. It remains the same across different builds and consists of 16 bytes, so there is very little probability that two .NET libraries has the same *TypeLib* identifier. Therefore, it is a good source of information when classifying malware. It can be found in *blob stream* and is usually written down in form described by this regular expression:

[a-z0-9]{8}-([a-z0-9]{4}){3}-[a-z0-9]{12}

2.2 Module Version identifier

Module version ID (or just *MVID*) is always automatically generated when building the project and it uniquely identifies the build of .NET module. Same as with *TypeLib* identifier, it consists of 16 bytes. In contrary to *TypeLib* identifier, it is always present in every single

.NET module. Since it changes with every new build it does not provide very broad detection, but still can be used to identify matching modules where each may be packed with different kind of packer or modified with some post-build scripts. This identifier is the easiest to change because it is usually placed at the beginning of *GUID stream*. That is also the reason we sometimes see executable files with *MVID* consisting of all zeroes in the wild.

3 RELATED WORK

The official documentation for CLI (Common Language Infrastructure) [2] describes the concepts for transforming high-level constructs into low-level representation in CIL (Common Intermediate Language). It explains what streams are and what metadata tables should be used to store which kind of information. However, it does not mention anything about unoptimized streams or indirect tables. You can read about these in the book *.NET IL Assembler* [4] which provides more detailed explanation of each metadata table, contains many information about undocumented features and is currently the best source of information regarding CLI. Both of these however do not deal with type reconstruction.

From the analytical software point of view, there are currently many .NET disassemblers which can already reconstruct the data types however all of them have a drawback. Some of them cannot handle corrupted, packed or obfuscated files. Others are written in some other .NET language (most likely C#) making it very hard to incorporate into other C/C++ libraries. This approach can also be harmful if not done properly. Loading .NET module into memory needs to be done in reflection-only mode otherwise malicious code can be executed on load. The last problem we often face are undocumented features of CLI which are not supported.

The most notable example of a library for parsing .NET executables is dnlib [1] which is the most robust from all the other libraries. However it is written in C# and thus relies on .NET framework. Another example is ildasm [3], IL disassembler from Microsoft which comes with every installation of Visual Studio. It is both GUI and console application. The problem is that it is not very robust and tends to crash with packed or obfuscated binaries. Its output is also not suitable for automated processing, because it dumps the whole disassembled code. Similar to ildasm is ikdasm [4] which is just its clone that does not run on *System.Reflection* module but rather on its reimplementation *Managed.Reflection*. The newer alternative to ikdasm is monodis [7], which rely on Mono framework and has many bugs of its predecessor fixed, but still not suitable for automated processing.

The first one to introduce *TypeLib* and *Module Version* identifier for .NET malware classification was Brian Wallace [12]. He also suggested the ways to extract it either with using .NET or just simply searching for strings with regular expression. The first approach is not suitable for environments where .NET cannot be used and the latter is not reliable because .NET binaries may contains many GUIDs. He also provided Python script for extraction of *TypeLib* ID but this script does not know how to deal with some packed or obfuscated binaries. This script was also incorporated into VirusTotal [10] resulting in inability to extract *TypeLib* ID from certain executables. Project YARA [11], tool for searching detection patterns written in declarative language called YARA, also supports parsing of *TypeLib* identifier but it does not support unoptimized streams and also *Module Version* identifier.

4 INFORMATION EXTRACTION

In this chapter, we will describe how several selected information can be extracted from .NET executable files. There are still many more information to extract than this chapter describes but our focus is brought on data type reconstruction and detection of *TypeLib* identifier.

4.1 User-defined classes

For parsing user-defined classes we will use table TypeDef. Each record in this table contains index into *string stream* with the name of the class and its namespace. In case of generic class, the name of the class contains special suffix *`N* (backquote followed by number), where *N* is the number of generic parameters. Additional information such as the accessibility of a class, seal, abstractness or interface are determined based on Flags.

Structure of table **TypeDef**.

```
struct TypeDef {
    uint32 Flags
    Index<StringStream> Name
    Index<StringStream> Namespace
    Index<TypeDef, TypeRef> Extends
    Index<Field> FieldList
    Index<MethodDef> MethodList
}
```

4.2 External classes

External classes are imported from other modules. We can use this information to get slight idea on what this binary does, but it is also important for proper reconstruction of user-defined types. Table **TypeRef** is used for these kinds of types. It contains name and namespace such as user-defined types, but nothing more.

Structure of table **TypeRef**.

```
struct TypeRef {
    Index<Module, ModuleRef, AssemblyRef, TypeRef> ResolutionScope
    Index<StringStream> Name
    Index<StringStream> Namespace
}
```

4.3 Class fields

Records in the table TypeDef contain field FieldList, which is index to Field table (FieldPtr for unoptimized streams). The number of fields is determined from the indices of two consecutive TypeDef records. For the last record, the number of fields is determined as difference between the size of Field table (FieldPtr for unoptimized streams) and the index of the last FieldList value.

Each field record represents one field in class. It contains index into *string stream* with its name. The data type of field is determined from the encoded signature that is located in *blob stream*. Visibility and more additional information is determined from Flags.

Structure of table **Field**.

```
struct Field {
    uint16 Flags
    Index<StringStream> Name
    Index<BlobStream> Signature
}
```

4.4 Class properties

Reconstruction of properties is not as straightforward as fields. The table Property contains all properties in user-defined types. Association of records in TypeDef table and Property table is then done through table PropertyMap. Everything else is the same as with fields. Each record in PropertyMap contains field PropertyList, which points to the first property of associated class in the table Property (PropertyPtr for unoptimized streams). The number of properties is determined from two consecutive PropertyMap records.

Structure of tables **Property** and **PropertyMap**.

```
struct Property {
   uint16 Flags
   Index<StringStream> Name
   Index<BlobStream> Signature
}

struct PropertyMap {
   Index<TypeDef> Parent
   Index<Property> PropertyList
}
```

4.5 Methods

The table MethodDef is used for reconstruction of class methods. The number of methods is calculated the same way as with fields and properties. The number and types of formal parameters needs to be extracted from the encoded signature present in the *blob stream* which is indexed with attribute Signature. In case of generic method, the first byte of signature has sixth bit (starting from 1) set to 1. It is followed by encoded number of parameters which are further followed by encoded types of each individual parameter. Identifiers of parameters are reconstructed from the table Param which the attribute ParamList points to (ParamPtr for unoptimized streams).

Structure of table **MethodDef**.

```
struct MethodDef {
   uint32 RVA
   uint16 ImplFlags
   uint16 Flags
   Index<StringStream> Name
   Index<BlobStream> Signature
   Index<Param> ParamList
}
```

4.6 Inheritance

Inheritance is determined from TypeDef table. Records there contain Extends, which is reference to one of tables TypeDef, TypeRef or TypeSpec. The latter is used in case of inheritance from generic class specialization such as Class<int>.

There is no support for multiple inheritance, but single class can implement several interfaces. These are not handled through Extends but rather table InterfaceImpl, which contains just two fields for each record and that is reference to TypeDef as class implementing the interface and the reference to either TypeDef, TypeRef or TypeSpec as interface being implemented.

Structure of tables **InterfaceImpl** and **TypeSpec**.

```
struct InterfaceImpl {
   Index<TypeDef> Class
   Index<TypeDef, TypeRef> Interface
}

struct TypeSpec {
   Index<BlobStream> Signature
}
```

4.7 Generic parameters

It is appropriate to reconstruct also names of generic parameters for which the table GenericParam is used. Attribute Owner references either TypeDef or MethodDef depending on whether the generic parameters belongs to class or method. The name is then references with attribute Name that points to *string stream*.

Structure of table **TypeRef**.

```
struct GenericParam {
   uint16 Number
   uint16 Flags
   Index<TypeDef, TypeRef> Owner
   Index<StringStream> Name
}
```

4.8 Nested classes

When dealing with nested classes, we face a problem because class defined in another class does not have right namespace set in TypeDef table and if we want to reconstruct fully qualified names of all types, we need to deal with this situation. The table NestedClass helps with this because it provides information about nesting. Nested class is references with attribute NestedClass and its parent is references with EnclosingClass.

Structure of table **NestedClass**.

```
struct NestedClass {
   Index<TypeDef> NestedClass
   Index<TypeDef> EnclosingClass
}
```

4.9 TypeLib ID & MVID

In order to find *TypeLib*, we first need to locate record in TypeRef table that refers to type named GuidAttribute and is from module mscorlib. After that, we search the table MemberRef for reference to record in TypeRef we found in the first step. The last step involves searching the table CustomAttribute for a reference to record found in the second step. There can be multiple such references so we need to check each one whether it points to string in *string stream* that can be matched with regular expression for generic unique identifier.

Finding *MVID* is fairly easy. We just need to take the very first record out of Module table and of it its attributes is actually called Mvid which points to *GUID stream*.

5 RESULTS

We implemented the reconstruction of .NET information in pure C++ based on the description given in previous chapter as a part of tool fileinfo. This tool is part of project RetDec [9] developed by Avast. It is used to extract various information out of binary files in multiple file formats.

We then compared the results with some of the tools mentioned in Chapter 3. We were not able to compare every single one because some of them does not provide any interface to automatize the testing. The interesting for us was robustness when dealing with corrupted, packed or obfuscated binaries, which are fairly common in the world of malware. We have downloaded 100,000 executable files from VirusTotal [10], which were marked with tags *peexe* and *assembly* and imported at least one symbol from library *mscoree.dll*.

The machine used for testing was server with 2x Intel Xeon E5-2699 v4@2.20GHz and 256 GB of RAM. Each program was run separately. All 100,000 samples were processed in parallel. There was a timeout of 60 seconds and if the tested program did not produce any result in that time it was killed. The success rate results are shown in Table 1. Errors means how many times the program returned something other than 0. Crashes show the number of segmentation faults, aborts and other unexpected terminations. Timeouts just means how many times we had to kill the program after 60 seconds. You can clearly see that the best results achieved fileinfo. The single timeout was caused by sample that had really complex .NET class hierarchy so it would need more than 60 seconds to finish.

Table 1: Success rate results.

	Errors	**Crashes**	**Timeouts**
fileinfo	0	0	1
monodis	905	47042	6
ikdasm	9342	149	192

In the Table 2, you can see performance results. Times you see in the table are calculated as average of 10 consecutive test runs. Running time means how long were tests actually running on all 100,000 samples. Total time is sum of all durations of every single instance of tested program. Even though fastest was monodis, we need to take into account that it crashed a lot of times, therefore skewing the performance results.

Table 2: Performance results.

	Running time	**Total time**
Fileinfo	6m 45s	9h 45m 56s
Monodis	1m 47s	1h 47m 12s
Ikdasm	26m 36s	1d 13h 46m 26s

6 CONCLUSION AND FUTURE WORK

We have dealt with extraction of data types, *TypeLib* identifier and *Module Version* identifier (*MVID*) out of .NET executable files in this paper. We have described how we can reconstruct classes, methods, fields, properties, inheritance hierarchy and nesting of classes. We have also described the way to properly extract *TypeLib* identifier and *MVID*. We implemented proposed methods and compared the results against other available .NET disassemblers. We pointed out the mistakes that are made in the current world of malware hunting. During work on this article, we have contacted VirusTotal [10] and reported them our findings about some packed and obfuscated binaries that do not have any or have an incorrect *TypeLib* identifier shown on their web. We also made pull request with adding support for unoptimized streams into project YARA [11].

The achieved results are more than satisfactory. The hardened implementation backed up by research in reverse engineering of .NET executable files proved to be better than usual implementations based on .NET framework reflection. In the time of writing of this article, the source code is not available as it is part of retargetable decompiler RetDec [9] developed by Avast Software. However, it is already in the process of open sourcing and it should be available on official Avast GitHub profile page by the end of the year 2017.
In the future, we would like to research for additional features that can be extracted from .NET executable files. We would also like to build further on the proposed methods and start creating detection patterns out of the extracted information. Clustering and machine learning are also the long-term goals for .NET executable files.

Acknowledgment
This work was supported by Avast Scholar program created by Avast Software s.r.o.

Sources

1. 0xd4d/dnlib: dnlib is a library that can read, write and create .NET assemblies and modules. https://github.com/0xd4d/dnlib. [online; 30-11-2017].
2. ECMA International. *Standard ECMA-335 – Common Language Infrastructure (CLI).* https://www.ecma-international.org/publications/files/ECMA-ST/ECMA-335.pdf. [online; 26-11-2017]. June 2012.
3. Ildasm.exe (IL Disassembler) | Microsoft Docs. https://docs.microsoft.com/en-us/dotnet/framework/tools/ildasm-exe-il-disassembler. [online; 30-11-2017].
4. jfrijters/ikdasm: Managed.Reflection based ildasm clone. https://github.com/jfrijters/ikdasm. [online; 30-11-2017].
5. Lidin, S. .*NET IL Assembler*. Apress, 2014. ISBN 1430267615.
6. Microsoft. *PE Format.* https://msdn.microsoft.com/en-us/library/windows/desktop/ms680547(v=vs.85).aspx. [online; 26-11-2017].
7. mono/mono: Mono open source ECMA CLI, C# and .NET implementation. https://github.com/mono/mono. [online; 30-11-2017].
8. Pontiroli, S., Martinez, R., *The rise of .NET and Powershell malware.* https://securelist.com/the-rise-of-net-and-powershell-malware/72417/. [online; 26-11-2017].
9. Retargetable Decompiler. https://retdec.com/, [online; 28-11-2017].
10. VirusTotal – Free Online Virus, Malware and URL Scanner. https://www.virustotal.com/en/. [online; 26-11-2017].
11. VirusTotal/yara: The pattern matching swiss knife. https://github.com/VirusTotal/yara. [online; 26-11-2017].
12. Wallace, B. *Using .NET GUIDs to help hunt for malware.* https://www.virusbulletin.com/uploads/pdf/magazine/2015/vb201506-NET-GUIDs.pdf. [online; 27-11-2017].

Contact

Ing. Marek Milkovič
Božetěchova 1/2, 612 00 Brno-Královo Pole, Czech Rep.
Tel: +421 948 038 667
Email: imilkovic@fit.vutbr.cz

OCHRANA SÚKROMIA A OCHRANA OSOBNÝCH ÚDAJOV NA SOCIÁLNYCH SIEŤACH

PROTECTION OF PRIVACY AND PROTECTION OF PERSONAL DATA ON SOCIAL NETWORKS

Eleonóra Beňová, Silvia Treľová

Abstrakt

Príspevok sa venuje oblastiam ochrany súkromia a ochrany osobných údajov na sociálnych sieťach. Sumarizuje pohľad na právo na súkromie ako základné ľudské právo, ktoré je chránené rôznymi legislatívnymi prostriedkami, ktoré v súčasnosti podliehajú celosvetovým zmenám. Upriamuje tiež pozornosť na prácu s osobnými údajmi, možnosťami ich zneužitia a konkretizuje opatrenia na minimalizáciu takýchto hrozieb.

Kľúčové slová: *ochrana súkromia, ochrana osobných údajov, sociálne siete*

Abstract

This article focuses on protection of privacy and protection of personal data on social networks. It summarizes the view of the right to privacy as a basic human right, which is protected by the various legislative instruments currently subject to global change. It also draws attention to the work with personal data, the possibilities of abuse, and specifies measures to minimize such threats.

Key words: *protection of privacy, protection of personal data, social networks*

1 ÚVOD

Internet je dnes súčasťou každodennej reality väčšiny ľudí. Jednými z najobľúbenejších a najnavštevovanejších internetových stránok vôbec sú sociálne siete. Zo sociálnych sietí, ktoré boli pôvodne určené pre špecifické skupiny ľudí, sa stal fenomén a ich dominanciu umocňuje vývoj informačných technológií, najmä mobilných telefónov. Ich využívaním sa, či už chceme alebo nie, presúvame do virtuálneho sveta a zanechávame stopu, ktorá o nás vypovedá množstvo informácii. Tieto informácie však môžu byť využívané tretími stranami, prípadne zneužité proti nám. Od mája 2018 sa v celej Európskej únii začne uplatňovať nové nariadenie Európskeho parlamentu a Rady (EÚ), nariadenie č. 2016/679 z 27. apríla 2016 o ochrane fyzických osôb pri spracovaní osobných údajov a o voľnom pohybe takýchto údajov (General Data Protection Regulation – GDPR), ktorým sa ruší smernica 95/46/ES (všeobecné nariadenie o ochrane údajov). Podľa GDPR majú byť pod ochranou akékoľvek informácie a údaje, ktoré vedú k identifikovaniu osobných údajov jednotlivcov. Touto novou reguláciou sa tak rozširuje skupina informácií, ktoré sa považujú za osobné údaje a pre organizácie sa sprísňujú pravidlá preukazovania platného súhlasu s použitím osobných údajov. Tam kde je riziko narušenia súkromia vysoké, budú musieť organizácie posudzovať riziká a dopady narušenia súkromia klientov.

2 SÚKROMIE A OSOBNÉ ÚDAJE

Pojem *súkromie* je často používaný v bežnom jazyku, rovnako tak v politickej ako aj právnej sfére, napriek tomu sa však vymyká jednotnej definícii. Súkromie možno definovať napríklad ako „*okruh skutočnosti osobného života*“[1], teda ako opak verejnej oblasti. Býva tiež chápané ako právo zdržiavať sa vo vlastnom priestore, byť ponechaný sám sebe, bez zásahu druhých, ale aj ako právo na kontrolu nad vlastnými informáciami[2]. Súkromie možno chápať v zmysle fyzickom, teda ako nezasahovanie do osobných vecí a majetku alebo informačnom, teda ako pojem odkazujúci na ochranu osobnosti v súvislosti so zberom, ukladaním a zdieľaním informácií.

Koncepty súkromia a ich chápanie sa v jednotlivých spoločnostiach, kultúrach a jurisdikciách do značnej miery líšia. V literatúre sa najčastejšie citujú odlišnosti v poňatí európskom a americkom. V centre európskeho poňatia je uchovanie cti a dôstojnosti jednotlivca a z toho plynúce právo jednotlivca na kontrolu vlastných informácií. Výrazom európskeho poňatia pojmu súkromie je článok 8, ods. 1 Európskeho dohovoru o ochrane ľudských práv a základných slobôd, podľa ktorého „*každý má právo na rešpektovanie svojho súkromného a rodinného života, obydlia a korešpondencie.*“ Americký pohľad sa v súlade so svojou liberálnou tradíciou sústredí na ochranu osôb a ich domovov proti neoprávneným zásahom, a to najmä zo strany štátu. Stret týchto koncepcií je zjavný napríklad v úplne odlišnom chápaní ochrany súkromia medzi spoločnosťou Facebook Inc., ktorej materská firma sídli v Spojených štátoch a európskymi iniciatívami usilujúcimi sa o obmedzenie nakladania s dátami užívateľov sociálnych sietí a ďalších online služieb. Súkromie môže byť chápané ako komodita, ktorú môže jednotlivec poskytovať výmenou za služby či produkty, alebo naopak ako základné ľudské právo, ktoré musí byť za všetkých okolností chránené.[3]

Ochrana osobných údajov patrí do oblasti ochrany ľudských práv a slobôd. Právo na ochranu osobných údajov nám zaručuje aj Ústavný zákon č. 460/1992 Zb. Ústava Slovenskej republiky v znení neskorších právnych predpisov (ďalej len „Ústava SR“) v čl. 19 ods. 3: „*Každý má právo na ochranu pred neoprávneným zhromažďovaním, zverejňovaním alebo iným zneužívaním údajov o svojej osobe*.“

Pri vymedzení pojmu *osobné údaje* vychádzame z legálnej definície podľa § 4 ods. 1 zákona č. 122/2013 Z. z. o ochrane osobných údajov a o zmene a doplnení niektorých zákonov v znení neskorších právnych predpisov (ďalej len „zákon o ochrane osobných údajov)“. Podľa uvedeného ustanovenia sú osobnými údajmi „*údaje týkajúce sa určenej alebo určiteľnej fyzickej osoby, pričom takou osobou je osoba, ktorú možno určiť priamo alebo nepriamo, najmä na základe všeobecne použiteľného identifikátora alebo na základe jednej či viacerých charakteristík alebo znakov, ktoré tvoria jej fyzickú, fyziologickú, psychickú, mentálnu, ekonomickú, kultúrnu alebo sociálnu identitu*.“ Právna úprava neustanovuje konkrétny zoznam údajov, ktoré sú považované za osobné údaje. Poskytuje tzv. demonštratívny výpočet charakteristík určujúcich fyzickú osobu. Uvedená definícia osobných údajov nevyžaduje, aby išlo o konkrétnu identitu fyzickej osoby, ale postačuje, aby za splnenia daných podmienok bola osoba určiteľná. Z vecnej stránky sa pojem osobných údajov vzťahuje na také údaje, ktoré sa týkajú identifikovanej alebo identifikovateľnej fyzickej osoby, t. j. určenej alebo určiteľnej, či už priamo alebo nepriamo.[4] Ako uvádza Ficek, „*osobným údajom osoby teda môže byť akýkoľvek údaj, na základe ktorého možno identifikovať alebo by bolo možné*

[1] MAŠTALKA, J. (2008). *Osobní údaje, právo a my*. Praha: C. H. Beck, 2008. 212 s. ISBN 978-80-7400-033-1.
[2] CRAIG, T. – LUDLOFF, M. E. (2011). *Privacy and big data*. Sebastopol, CA: O'Reilly, 2011. 321 s. ISBN 978-144-9305-000.
[3] CRAIG, T. – LUDLOFF, M. E. (2011). *Privacy and big data*. Sebastopol, CA: O'Reilly, 2011. 321 s. ISBN 978-144-9305-000.
[4] MACOVÁ, M. – VRABKO, M. *Komentár zákona č. 122/2013 Z. z.* [online]. [cit. 28.11.2017]. Dostupné z:<http://www.epi.sk/komentovane-ustanovenie/Komentar-k-p-4-zakona-122-2013-Z-z-2.htm>

identifikovať fyzickú osobu. Forma, v ktorej sú osobné údaje k dispozícii, pritom môže byť rovnako akákoľvek, napríklad písomná, grafická, zvuková, dokonca môžu byť informácie uložené aj v pamäti počítača. Stačí, aby bola táto forma spôsobilá niesť informáciu, teda osobný údaj fyzickej osoby, na základe ktorého túto osobu dokážeme identifikovať."[5]

3 SOCIÁLNE SIETE

Na sociálne siete my sami dobrovoľne odovzdávame súkromné informácie, ako sú fotografie, komentáre, statusy, či lajky. Lenže okrem toho spolu s nimi putujú aj metadata, ktoré často krát nevidíme a nemyslíme na ne. Nad takýmito informáciami strácame kontrolu v okamihu ich zverejnenia v informačnej sieti. Raz zaznamenaná informácia tak môže v digitálnom prostredí pretrvávať večne bez ohľadu na to, či si to jej autor praje alebo nie.[6]

Úroveň kontroly užívateľa nad skutočným rozsahom spracovávaných dát a možnosť toto spracovávanie ovplyvniť je relatívne nízka, čo dokazuje napríklad spor, ktorý sa dostal do povedomia pod označením Europe vs. Facebook. Iniciátorom sporu Europe vs. Facebook bol rakúsky študent práv Maximilian Schrems, ktorý zistil, že zo strany právnikov a zástupcov Facebooku dochádza k veľmi skreslenej interpretácii poňatia európskych zákonov na ochranu osobných údajov. Jeho práca na túto tému viedla až k podaniu sťažnosti na úrade pre ochranu osobných údajov v Írsku. Schrems využil svoje právo a požiadal spoločnosť Facebook prostredníctvom online formulára o zaslanie všetkých uchovávaných dát o svojej osobe. Došlo tak k zisteniu, že Facebook má stále k dispozícii užívateľom zmazané dáta a môže s nimi neoprávnene nakladať.[7] Znepokojujúcim faktom bolo aj uchovávanie všetkej komunikácie v chate, ktorá mnohokrát obsahovala citlivé osobné údaje o ňom i jeho priateľoch a bola majiteľom vymazaná. Úsmevné je, že s tým všetci užívatelia súhlasia tým, že potvrdzujú Zásady využívania údajov. Uvádzame výňatok z ich privacy policy: „*Zhromažďujeme informácie z počítačov, telefónov a iných zariadení (alebo o nich), na ktorých inštalujete a používate naše Služby, v závislosti od povolení, ktoré ste udelili. Informácie, ktoré zhromažďujeme z vašich rôznych zariadení, môžeme spojiť, čo nám pomáha poskytovať konzistentné Služby vo všetkých vašich zariadeniach*"[8] A nielen to. Facebook dokonca získava dáta aj zo stránok, na ktorých je iba umiestnený Facebook plug-in.[9] Navyše tieto informácie získa aj pokiaľ užívateľ v tej chvíli nie je k Facebooku pripojený. Čo sa týka databázového marketingu a prúdenia informácií o užívateľoch, o ňom nepriamo hovorí ďalší bod v privacy policy. Facebook získava dáta od partnerov, reklamných partnerov, zákazníkov a ďalších tretích strán, ktoré im pomáhajú sprostredkovať reklamy, analyzovať online aktivity a pod. Všetky tieto dáta sa navyše dlhodobo uchovávajú. „*Informácie, ktoré o vás získame, vrátane údajov z finančných transakcií, ktoré použijete pri nákupe prostredníctvom Facebooku, sa môžu sprístupniť, spracovať alebo uchovať dlhšiu dobu.*" Toto pomerne vágne oznámenie v praxi znamená, že ak je zrušený profil so žiadosťou o jeho vymazanie (existuje možnosť profil na určitú dobu deaktivovať, čo obsah iba skryje), dochádza len k vymazaniu identifikačných údajov o užívateľovi. Všetky ostatné informácie na serveri zostávajú (ako napríklad fotografie), iba naďalej nie sú spojené s konkrétnym profilom. Navyše k vymazaniu dochádza až po určitom čase, ktorý Facebook užívateľovi dáva na rozmyslenie.

---

[5] FICEK M. (2017). *Právne okienko: Ochrana osobných údajov*. [online] 11.05.2017. [cit. 28.11.2017]. Dostupné z:<https://www.pcrevue.sk/a/Pravne-okienko--Ochrana-osobnych-udajov>

[6] POLČÁK, R. (2012). *Internet a proměny práva*. Praha: Auditorium, 2012. 388 s. ISBN 978- 80-87284-22-3.

[7] EUROPE VS. FACEBOOK [online]. [cit. 29.11.2017]. Dostupné z: <http://www.europe-v-facebook.org/EN/en.html>

[8] FACEBOOK. *Zásady využívania údajov*. [online]. [cit. 29.11.2017]. Dostupné z: <https://sk-sk.facebook.com/privacy/explanation>

[9] Pozn.: nástroj, vďaka ktorému môže užívateľ napríklad určitú stránku zdieľať na svojej nástenke priamo z onej stránky

4 ŠPIONÁŽNE APLIKÁCIE A ÚMYSELNÉ ZASAHOVANIE DO SÚKROMIA A OCHRANY OSOBNÝCH ÚDAJOV

Anonymita internetu a počítačových sietí sú využívané v čoraz väčšej miere k páchaniu rôznych protiprávnych konaní, ktoré nie sú obmedzované hranicami a spôsobujú rôzne ujmy, rôznym subjektom. Ako príklad zneužitia môžeme uviesť napríklad zneužitie fotografií a videí danej osoby na vydieranie, pomstu či jej dehonestáciu. V prípade zneužitia prístupového mena a hesla sa možno vydávať za osobu, ktorej patrí e-mailová schránka či profil na sociálnej sieti, čiže pôjde o tzv. krádež identity. V prípade získania údajov platobnej karty možno neoprávnene previesť finančné prostriedky na iný účet a podobne.[10] Po inštalácii „špionážnych" aplikácii (napr. Hoverwatch, GuestSpy, Copy9, Internet Evidencia Finder (IEF), Forensic Toolkit 3 (FTK 3), TopSpy, iKeyMonitor, XNSpy, keylogger, využitie phishingu a iné), sa v tichosti zaznamenávajú všetky operácie v telefóne a odosielajú sa sledovateľovi. Ich využitím môžeme ľahko sledovať procesy v telefóne, odchytávať textové správy, e-maily, polohu GPS, podrobnosti o hovore, obrázky a video, histórie prehliadača, chat, instant messaging, Facebookové správy, rovnako dokážeme zachytiť všetky konverzácie v populárnom Messengeri WhatsApp a dokonca si môžeme prezrieť živú obrazovku mobilného telefónu cez webový prehliadač. Takéto aplikácie pracujú v utajenom režime, čo znamená, že užívatelia telefónov si ani nevšimnú, že spyware je už na ich smartphone. Takýto softvér dokáže vyhľadávať záznamy z internetových diskusií na vybraných diskoch, adresároch alebo v súboroch (súbory s výpisom pamäte - memory dumpy, pagefile.sys, hiberfil.sys a ďalších). Dokážu na disku vyhľadať správy nielen z facebookového chatu, ale aj z Windows Live Messengera, Yahoo! chatu, GoogleTalk chatu a mnohých iných služieb. Sú schopné vytvoriť filtráciu, ktorá nájde napr. Facebook JSON súbory v adresári Temporary Internet Files (TIF). Bez zakúpenia registračného kľúča možno mnohé z nich spustiť v demo verzii, ktorá zobrazí prvých pár položiek pre každý typ vyhľadávania a dokáže ich exportovať do prehľadného * .csv súboru.

Je potrebné si uvedomiť, že ak používame na chat instantného messengera, nie webový prehliadač, s veľkou pravdepodobnosťou budú záznamy všetkých diskusií uložené napríklad v xml formáte na disku, ľahko a rýchlo vyhladateľné. Dostať sa k týmto informáciám nevyžaduje poznať prihlasovacie meno, e-mail ani heslo do FB účtu. Stačí, aby sa k nášmu počítaču dostal niekto cudzí, prípadne aby si tento prístup vytvoril cez vzdialenú kontrolu.

Z právneho hľadiska subjektívnej stránky sa vyžaduje úmyselné zavinenie, pričom trestný čin neoprávneného zásahu do počítačového systému je v základnej skutkovej podstate prečinom. Na trestnosť páchateľa postačuje, ak koná niektorým zo spôsobov uvedených v skutkovej podstate. Zákon č. 300/2005 Z. z. Trestný zákon v znení neskorších predpisov (ďalej len „Trestný zákon") v § 247a poskytuje ochranu počítačových systémov pred akýmikoľvek neoprávnenými zásahmi do údajov, ktoré by mohli ohroziť alebo obmedziť funkčnosť počítačového systému.

Používateľ takéhoto softvéru napĺňa skutkovú podstatu trestného činu neoprávneného zachytávania počítačových údajov v zmysle § 247c Trestného zákona. Objektom trestného činu je ochrana tajomstva informácie prenášanej prostredníctvom elektronickej komunikačnej služby alebo tajomstva neverejného prenosu počítačových údajov do počítačového systému z neho alebo v rámci neho. Neoprávneným zachytávaním rozumieme odpočúvanie a monitorovanie obsahu komunikácie alebo jej sledovanie resp. získavanie obsahu údajov buď priamo, prostredníctvom prístupu a využívania informačného systému, alebo nepriamo, prostredníctvom využívania elektronického odpočúvania alebo odpočúvacieho zariadenia technickými prostriedkami. Z hľadiska subjektívnej stránky sa vyžaduje úmyselné zavinenie.

[10] FICEK M. (2017). *Právne okienko: Ochrana osobných údajov*. [online] 11.05.2017. [cit. 28.11.2017]. Dostupné z:<https://www.pcrevue.sk/a/Pravne-okienko--Ochrana-osobnych-udajov>

Trestný čin neoprávneného zachytávania počítačových údajov je vo svojej základnej skutkovej podstate prečinom.
Ustanovenie § 247d Trestného zákona kriminalizuje výrobu, dovoz, nákup, distribúciu, výmenu, uvedenie do obehu alebo sprístupnenie zariadení, ktoré sú vytvorené alebo prispôsobené na páchanie počítačovej trestnej činnosti, alebo manipuláciu s prístupovými heslami, kódmi a podobnými údajmi, ak má páchateľ v úmysle takéto zariadenia, heslá alebo kódy použiť na spáchanie vymedzených počítačových trestných činov.
Na spáchanie trestných činov uvedených § 247a – § 247d Trestného zákona sú v mnohých prípadoch potrebné nástroje na zabezpečenie prístupu alebo iné nástroje, čo vytvára dopyt na ich výrobu, zabezpečenie a distribúciu. Zariadenia alebo nástroje sú vytvárané z rôznych dôvodov, či už na legálne použitie, alebo s cieľom zviditeľniť sa, až po prípady vytvárania a distribúcie nástrojov „na objednávku“. Ideálnym prostredím, ktoré umožňuje dostatočnú anonymitu je tzv. darknet, ktorý predstavuje priestor s webovými stránkami, ktoré sú verejne viditeľné len so špecifickým nastavením umožňujúcim využívať niektorú z anonymizačných služieb, napríklad Tor, súčasťou ktorých je aj šifrovanie komunikácie. Je veľmi ťažko zistiteľné, kto prevádzkuje servery (napríklad prípad Silkroad). V rámci týchto stránok sú často ponúkané ilegálne tovary a služby, vrátane prístupových hesiel, botnetov, trójskych koní, malvéru (vrátane ransomvéru), ale aj hackingu ako služby, či vytvorenia špecifických vírusov a pod. Platby za tovary a služby sa často realizujú vo virtuálnych menách, čo podstatne sťažuje identifikáciu subjektov transakcií.

5 MOŽNOSTI ZVÝŠENIA OCHRANY

Akonáhle spustíme internetový prehliadač, prezrádzame o sebe svetu informácie zatiaľ ani nie tak o nás samotných, ako o počítači, platforme, prehliadači, ktorý používame a ďalšie identifikačné záležitosti. Ak používame napr. vyhľadávač Google, musíme počítať s tým, že údaje o nás sa zhromažďujú a naše súkromie môže byť ohrozené. Existujú aj bezpečnejšie alternatívy vyhľadávačov (napr. vyhľadávač DuckDuckGo.com), ktoré si o nás neukladá žiadne cookies ani iné informácie. Nie je žiadnym tajomstvom, že pokiaľ sme na internete, stránky, ktoré navštevujeme, sledujú našu aktivitu. Ak chceme byť menej „sledovaní“, existuje niekoľko možností, ako to vypnúť alebo prinajmenšom značne obmedziť. Vo väčšine prehliadačov cez Nastavenia.[11] Čo sa týka reklám na Faceeboku, tiež je možné deaktivovať ich odber a rovnako si ustrážiť svoje súkromie pred aplikáciami, ktorým automaticky pri ich inštalácií dáme súhlas s používaním našich osobných údajov. S Facebookom to však nie až tak jednoduché, pretože neustále vylepšovanie vzhľadu tejto stránky prináša aj zmenu nastavovania deaktivácie odberu reklám, prípadne nastavenia aplikácii, ktoré majú prístup k našim osobným údajom.
Za zmienku určite stojí aj deaktivácia sledovacích softvérov v našich aplikáciach, prípadne na samotnom zariadení. Napr. princíp aplikácie Marauder´s Map funguje na prenose dát z facebookového messengera. Pri odoslaní akejkoľvek správy sa neodošle len správa samotná, ale aj aktuálna poloha užívateľa. Práve informácia o lokalizácii používateľa sa potom extrahuje a zaznačí sa v mape.
V súčasnosti sú k dispozícii rôzne užitočné doplnky (napr. PrivacyFix), ktoré umožňujú lepšie ochrániť svoje súkromie na Facebooku, Google+, Twitter alebo LinkedIn. Ochránia nás pred nevhodne nastavenou viditeľnosťou našej emailovej adresy, telefónneho čísla, sledovaním cez cookies, umožňujú nastavovať zobrazovanú kontextovú reklamu, zamedzia identifikácii našej polohy a tiež regulujú možnosť označovať naše fotografie.

[11] Pozn.: Nastavenia > Rozšírené nastavenia > Súkromie > Posielať s údajmi prehliadania požiadavku “Nesledovať”. V Androide túto možnosť môžeme vypnúť v Nastavenia > Google > Reklamy > Deaktivovať prispôsobovanie reklám.

Ďalším pomocníkom môže byť použitie VPN alebo proxy. Drvivá väčšina takto zameraných služieb poskytuje okrem navonok zmenenej geolokácie aj zvýšenú ochranu proti škodlivým kódom. Len pre predstavu – privátna proxy môže stáť v priemere 1,5 eura na mesiac. Závisí od poskytovateľa a služieb. Pri najdrahších variantoch môžeme získať viac proxy serverov s IP adresami, ktoré nie sú sekvenčné, možnosť vybrať si krajinu serverov, plnú možnú rýchlosť spojenia a garantovanú spoľahlivosť. Pri využití služby VPN pripojenia sa vytvorí šifrované spojenie medzi naším počítačom a serverom Virtual Private Network poskytovateľa. Platené stoja okolo 50 € na rok.
Na zvýšenie ochrany nášho súkromia môžeme využiť aj inkognito režim. Stránky, ktoré prehliadame v tomto režime, nebudú ukladať na disku žiadne informácie a ani sa neobjavia v histórii, tiež sa neuložia preberané súbory do zoznamu stiahnutých súborov, cookies a súbory do vyrovnávacej pamäti.
Okrem bežných pravidiel, ktoré je potrebné dodržiavať pri bezpečnej komunikácii (silné heslo, pravidelná zmena hesla, dvojitá autentifikácia, prihlasovanie sa len zo (do) známych zabezpečených zariadení, odhlasovanie po ukončení komunikácie, neponechávať zariadenie bez dohľadu a pod.) môžeme uviesť ďalšie odporúčania, ktoré by mohli rovnako zvýšiť ochranu súkromia a osobných údajov: pravidelné premazávanie cookies, obsah TIF adresára, nezaznamenávanie diskusie z instant messengerov.

6 LEGISLATÍVA

Ochrana súkromia a ochrana osobných údajov ako základné ľudské práva sú chránené rôznymi legislatívnymi prostriedkami. V dnešnej dobe sa pri ochrane súkromia vychádza z rôznych smerníc, dohovorov a zákonov. Ústava SR ako základný zákon štátu vo svojich ustanoveniach garantuje ochranu základných ľudských práv, pričom podľa čl. 16 ods. 1 Ústavy SR je nedotknuteľnosť osoby a jej súkromia zaručená. Podľa čl. 19 ods. 3 Ústavy SR patrí každému právo na ochranu pred neoprávneným zhromažďovaním, zverejňovaním alebo iným zneužívaním údajov o svojej osobe.
V druhom rade nemožno opomenúť skutočnosť, že medzinárodné dohody, ktorými je Slovenská republika viazaná, majú prednosť pred vnútroštátnou úpravou. Na dynamické zmeny v "informačnom prostredí" musí reagovať aj Európske spoločenstvo, ktorého súčasťou je aj Slovenská republika. Ako sme už v úvode spomínali, dňa 25. mája 2018 začne v celej Európskej únii platiť nové nariadenie Európskeho parlamentu a Rady (EÚ o ochrane fyzických osôb pri spracovaní osobných údajov a o voľnom pohybe takýchto údajov (ruší smernicu 95/46/ES - všeobecné nariadenie o ochrane údajov). GDPR predstavuje výraznú zmenu v úprave ochrany osobných údajov, pričom týmto nariadením sa pristúpilo k jednotnej úprave v rámci celej EÚ. Nariadenie EÚ má z právneho aspektu povahu všeobecne záväzného právneho aktu, ktorý je priamo uplatniteľný vo svojej celistvosti v celej EÚ, teda má priamu účinnosť na všetky členské štáty EÚ.
V rámci vnútroštátnej úpravy Slovenskej republiky platí zákon o ochrane osobných údajov. Legislatíva momentálne pripravuje novelu zákona o ochrane osobných údajov, ktorá by mala byť účinná od 1. januára 2018 a má upravovať najmä oblasti, ktoré GDPR nerieši a má podrobnejšie upravovať aj niektoré pravidlá ochrany osobných údajov obsiahnuté v GDPR. Slovenský zákon o ochrane osobných údajov bude mať voči GDPR len doplnkovú funkciu.
Ochrana jednotlivých hodnôt človeka prostriedkami občianskeho práva je upravená v zákone č. 40/1964 Zb. Občiansky zákonník v znení neskorších právnych predpisov (ďalej len „Občiansky zákonník“), nemá však vyčerpávajúci charakter, ako to vyplýva z ustanovenia § 11 (fyzická osoba má právo na ochranu svojej osobnosti, najmä života a zdravia, občianskej cti a ľudskej dôstojnosti, ako aj súkromia, svojho mena a prejavov osobnej povahy), podľa

ktorého je výpočet jednotlivých hodnôt v Občianskom zákonníku uvedený len príkladmo, čo je zdôraznené formuláciou „najmä".[12]
Koncom roka 2015 prijala Národná rada Slovenskej republiky zákon č. 398/2015 Z. z. o európskom ochrannom príkaze v trestných veciach a o zmene a doplnení niektorých zákonov, ktorý nadobudol účinnosť od 1. januára 2016. Novelizoval Trestný zákon a priniesol úplne novú úpravu počítačovej kriminality vzhľadom k tomu, že sa nanovo definujú skutkové podstaty trestných činov neoprávneného prístupu do počítačového systému, neoprávneného zásahu do počítačového systému, neoprávneného zásahu do počítačového údaja, neoprávneného zachytávania počítačových údajov a trestný čin výroby a držby prístupového zariadenia, hesla do počítačového systému alebo iných údajov.
Uvedeným legislatívnym krokom bola okrem iného zabezpečená transpozícia právne záväzných aktov Európskej únie do právneho poriadku Slovenskej republiky, a to konkrétne smernicu Európskeho parlamentu a Rady 2013/40/EÚ z 12. augusta 2013 o útokoch na informačné systémy, ktorou sa nahrádza rámcové rozhodnutie Rady 2005/222/SVV.[13]
Ďalším často diskutovaným problémom, ktorého legislatíva je celkom čerstvá, je cezhraničné spracovanie osobných údajov prostredníctvom sociálnych sietí. Začiatkom roka 2016 bola uzatvorená dohoda medzi EÚ a Spojenými štátmi, v rámci ktorej je pripravované zriadenie nového právneho rámca pre transatlantické dátové toky, tzv. EÚ-U.S. Privacy Shield.[14] Privacy Shield reflektuje nutnosť revízie právneho rámca cezhraničného spracovania osobných údajov medzi Európskou úniou a Spojenými štátmi. V rámci tohto dohovoru existujú záruky Spojených štátov Európskej únii, že všetky zásahy verejnej moci Spojených štátov do osobných údajov v rámci presadzovania amerického práva či presadzovania národnej bezpečnosti budú obmedzené prostredníctvom špecifických opatrení a kontrolných mechanizmov. Spojené štáty taktiež v rámci Privacy Shield vylúčili akékoľvek vládne sledovanie osobných údajov prenášaných z EÚ.[15]
V súvislosti s plánovanou reformou existujúcej právnej úpravy ochrany osobných údajov a ochrany súkromia na úrovni EÚ je možné očakávať, že bude navrhovaná právna úprava efektívnejšia ako doteraz.

7 VÝSLEDKY

Faktom je, že dnešná spoločnosť generuje neuveriteľné množstvo dát rôzneho charakteru. Často až s nepochopiteľnou ľahkosťou ľudia zverejňujú osobné údaje veľmi citlivého charakteru. Predstava, že dáta umiestnené na sociálnych sieťach, na emaile, v cloudových úložiskách[16] sú v bezpečí, sa už rozplynula. V organizáciách, ale aj u širokej verejnosti, existujú oprávnené obavy, kto všetko môže sledovať ich komunikáciu a iné aktivity na

[12] epi.sk. *Ochrana osobných údajov*. [online]. [cit. 30.11.2017]. Dostupné z:<http://www.epi.sk/odborny-clanok/Ochrana-osobnych-udajov-3.htm>
[13] BENEDEKOVÁ, D. *Právna úprava počítačovej kriminality*. In: MARKOVÁ, V. ed. Aktuálne otázky trestného práva v teórii a praxi: Zborník príspevkov z 4. roč. interdisciplinárnej celoštátnej vedeckej konferencie s medzinárodnou účasťou. [online]. Bratislava: Akadémia Policajného zboru v Bratislave [cit. 30.11.2017] , s. 13 – 19. ISBN 978-80-8054-683-0. Dostupné na internete: www.akademiapz.sk
[14] Správa Európskej komisie z 2. februára 2016 o dohode medzi Komisiu a Spojenými štátmi o riadení EU-U.S. Privacy Shield
[15] PRITZKEROVÁ, P. – JOUROVÁ, V. *Víťazstvo transatlantickej ekonomiky*. [online]. [cit. 30.11.2017]. Dostupné z: <https://euractiv.sk/nazory/informacna-spolocnost/privacy-shield-vitazstvo-transatlantickej-ekonomiky/>
[16] Pozri aj KAROVIČ, V. ml. - GREGUŠ, Michal ml. (2015). *Practical Implementation of Private Cloud Based on Open Source ownCloud for Small Teams - Case Study*. V: 2015 10th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC): 2015 10th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC) [online]. B.m.: IEEE, s. 183–187. Dostupné na: doi:10.1109/3PGCIC.2015.149

internete. Miera sledovania najmä vo vyspelých krajinách prekročila hranicu, ktorú si obyčajný užívateľ internetu vôbec je schopný predstaviť, a toto sledovanie navyše výrazne vybočilo z hraníc, ktoré mu poskytuje ústava či zákony. Došli sme k záveru, že súčasná právna úprava nie je schopná efektívne riešiť aktuálne právne problémy vznikajúce v prostredí internetu, resp. sociálnych sietí. Je teda zjavné, že reforma súčasnej úpravy je nevyhnutná. Tieto nedostatky si uvedomuje aj Európska komisia, ktorá predstavila návrh celoeurópskej reformy ochrany osobných údajov (GDPR). Návrh obsahuje rad nových, v praxi naozaj potrebných práv, ako je právo prenosnosti osobných údajov alebo právo byť zabudnutý. Návrh nielen posilňuje práva dotknutých osôb a právomoci úradov na ochranu osobných údajov, ale aj zodpovednosť správcu. Veľkým prínosom návrhu je aj úprava miestnej pôsobnosti práva, kedy by sa novo vzťahovala európska právna úprava aj na mimoeurópskych správcov, ktorí poskytujú služby na území EÚ.

8 ZÁVER

Záverom môžeme zhrnúť, že hoci existujú spôsoby ako si chrániť súkromie, ako vymazať dáta užívateľa zo sociálnej siete, ako sa brániť proti takýmto hrozbám, tieto postupy nikdy nebudú kompletné a dáta zostanú v určitom, hoci obmedzenom rozsahu, prístupné iným používateľom. Dáta uverejnené užívateľom tiež môžu zostať v cache internetových vyhľadávačov, čo užívateľ nemá možnosť odstrániť. Žijeme v digitálnom veku, kedy každý z nás zanecháva stopy dát o svojej existencii a o svojom súkromí na internete a nie vždy si uvedomujeme, že všetky dáta, ktoré o nás budú uverejnené, tam s veľkou pravdepodobnosťou navždy zostanú. Likvidácia dát, či už z internetových vyhľadávačov, sociálnych sietí alebo dát uchovávaných správcami, je úlohou technicky náročnou a výsledky nám nikdy nezaručia, že všetky dáta boli úplne odstránené. Právo nám síce poskytuje určitý stupeň ochrany nášho súkromia a spracovanie osobných údajov, vrátane ich následnej likvidácie, ale ako sme si ukázali, táto ochrana nie je dostačujúca a súčasná legislatíva nám nie je schopná zaručiť kompletnú ochranu nášho súkromia v celom kyberpriestore.

Použitá literatura

1. BENEDEKOVÁ, D. *Právna úprava počítačovej kriminality*. In: MARKOVÁ, V. ed. Aktuálne otázky trestného práva v teórii a praxi: Zborník príspevkov z 4. roč. interdisciplinárnej celoštátnej vedeckej konferencie s medzinárodnou účasťou. [online]. Bratislava: Akadémia Policajného zboru v Bratislave [cit. 30.11.2017] , s. 13 – 19. ISBN 978-80-8054-683-0. Dostupné na internete: www.akademiapz.sk
2. CRAIG, T. – LUDLOFF, M. E. (2011). *Privacy and big data*. Sebastopol, CA: O'Reilly, 2011. 321 s. ISBN 978-144-9305-000.
3. epi.sk .*Ochrana osobných údajov*. [online]. [cit. 30.11.2017]. Dostupné z:<http://www.epi.sk/odborny-clanok/Ochrana-osobnych-udajov-3.htm>
4. EUROPE VS. FACEBOOK [online]. [cit. 29.11.2017]. Dostupné z: <http://www.europe-v-facebook.org/EN/en.html>
5. *Európsky dohovor o ochrane ľudských práv a základných slobôd*, Rím, 4.XI.1950
6. FACEBOOK. *Zásady využívania údajov*. [online]. [cit. 29.11.2017]. Dostupné z: <https://sk-sk.facebook.com/privacy/explanation>
7. FICEK M. (2017). *Právne okienko: Ochrana osobných údajov*. [online] 11.05.2017. [cit. 28.11.2017]. Dostupné z:<https://www.pcrevue.sk/a/Pravne-okienko--Ochrana-osobnych-udajov>
8. KAROVIČ, V. ml. - GREGUŠ, Michal ml. (2015). *Practical Implementation of Private Cloud Based on Open Source ownCloud for Small Teams - Case Study*. V: 2015 10th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC): 2015 10th International Conference on P2P, Parallel, Grid,

Cloud and Internet Computing (3PGCIC) [online]. B.m.: IEEE, s. 183–187. Dostupné na: doi:10.1109/3PGCIC.2015.149
9. MACOVÁ, M. – VRABKO, M. *Komentár zákona č. 122/2013 Z. z.* [online]. [cit. 28.11.2017]. Dostupné z:<http://www.epi.sk/komentovane-ustanovenie/Komentar-k-p-4-zakona-122-2013-Z-z-2.htm>
10. MAŠTALKA, J. (2008). *Osobní údaje, právo a my*. Praha: C. H. Beck, 2008. 212 s. ISBN 978-80-7400-033-1.
11. POLČÁK, R. (2012). *Internet a proměny práva*. Praha: Auditorium, 2012. 388 s. ISBN 978- 80-87284-22-3.
12. PRITZKEROVÁ, P. – JOUROVÁ, V. *Víťazstvo transatlantickej ekonomiky*. [online]. [cit. 30.11.2017]. Dostupné z: <https://euractiv.sk/nazory/informacna-spolocnost/privacy-shield-vitazstvo-transatlantickej-ekonomiky/>
13. Správa Európskej komisie z 2. februára 2016 o dohode medzi Komisiu a Spojenými štátmi o riadení EU-U.S. Privacy Shield
14. Ústavný zákon č. 460/1992 Zb. Ústava Slovenskej republiky v znení neskorších právnych predpisov.
15. Zákon č. 40/1964 Zb. Občiansky zákonník v znení neskorších právnych predpisov.
16. Zákon č. 300/2005 Z. z. Trestný zákon v znení neskorších predpisov.
17. Zákon č. 122/2013 Z. z. o ochrane osobných údajov a o zmene a doplnení niektorých zákonov v znení neskorších právnych predpisov.
18. Zákon č. 398/2015 Z. z. o európskom ochrannom príkaze v trestných veciach a o zmene a doplnení niektorých zákonov, ktorý nadobudol účinnosť od 1. januára 2016.

Kontaktní údaje

Mgr. Eleonóra Beňová, PhD.
Univerzita Komenského v Bratislave, Fakulta managementu
Odbojárov 10, P. O. BOX 95, 820 05 Bratislava 25
Slovenská republika
Tel.: +421 2 50 117 485
email: eleonora.benova@fm.uniba.sk

JUDr. PhDr. Silvia Treľová, PhD.
Univerzita Komenského v Bratislave, Fakulta managementu
Odbojárov 10, P. O. BOX 95, 820 05 Bratislava 25
Slovenská republika
Tel.: +421 2 50 117 485
email: silvia.trelova@fm.uniba.sk

INTERNET VECÍ - FENOMÉN SÚČASNOSTI

INTERNET OF THINGS - THE PHENOMENON OF THE PRESENT

Magdaléna Cárachová

Abstrakt

V súčasnosti ľudia prostredníctvom internetu dennodenne komunikujú, získavajú informácie, zdieľajú svoje pocity na sociálnych sieťach a diskusných fórach, nakupujú v e-shopoch, či uskutočňujú finančné transakcie. Internet sám o sebe je produkt, ktorý tvorí akýsi prostriedok, alebo transformátor pre údaje, ktoré vytvorili a zhromaždili ľudia a prostredníctvom internetu ich zdieľajú s ďalšími ľuďmi. Na scénu sa však dostáva nový typ internetu. Internet, ktorý nespája ľudí, ale veci, ktoré nás obklopujú, a ktoré využívame v každodennom živote. Do popredia v technologickom svete sa tak dostáva pojem internet vecí, ktorý je konceptom vízie, že všetko by malo byť pripojené na internet. Tento koncept má zásadný význam pre budúcnosť, pretože otvára priestor pre inovácie, nové služby, rýchlejší a efektívnejší spôsob komunikácie a automatizácie každodenných činností v súkromnej, ako aj v podnikovej sfére, na čo poukazuje tento príspevok.

Klíčová slova: *Internet of Things (IoT) senzory, životné prostredie, wearabless zariadenia, monitorovanie systémov, typy komunikácie v IoT, komunikačná brána, optimalizácia zdrojov, identifikačné zariadenia.*

Abstract

At present, people communicate through the Internet every day, get information, share their feelings on social networks and forums, shop at e-shops, or make financial transactions. The Internet itself is a product that forms some kind of a medium or transformer for the data that people have created and gathered, and they share it with other people via the Internet. However, a new type of the Internet comes on the scene. The Internet that does not connect people but the things that surround us and that we use in everyday life. The concept of the Internet of Things (IoT), which is the concept of the vision that everything should be connected to the Internet, is the forerunner in the technological world. This concept is of fundamental importance for the future as it opens up space for innovation, new services, a faster and more efficient way to communicate and automate everyday activities in the private as well as the corporate sphere, as this article points out.

Key words: *IoT sensors, vital environment, wearabless devices, monitoring of systems, IoT communication types, communication gateway, resource optimization, identification devices.*

ÚVOD

Internet vecí je v súčasnej dobe fenomén, ktorého využitie je vo viacerých smeroch – od inteligentných miest, inteligentnej domácnosti až po priemysel 4.0, ktorého je internet vecí súčasťou. Zatiaľ čo inteligentné riešenia v domácnostiach nie sú veľmi nákladné, pri podnikových riešeniach sú náklady na zavedenie, ako aj prípadné riziká vyššie než u domácností, a to na jednej strane z dôvodu potreby integrácie internetu vecí do súčasného podnikového informačného systému, na druhej strane vzhľadom na otázky bezpečnosti podnikového informačného systému, nedostatku skúsených odborníkov v tejto oblasti, či nedostatku informácií. Na základe týchto dôvodov sa dá predpokladať, že podniky budú k zmenám v tejto oblasti pristupovať spočiatku konzervatívne, ale kvôli udržaniu konkurencieschopnosti budú nútené tieto riešenia postupom času zavádzať.

1 VYMEDZENIE POJMU

Pojem internet vecí nie je v súčasnej dobe jednoznačne definovaný, nakoľko sa ešte stále vyvíja. S jeho definíciou sa stretávame od viacerých renomovaných spoločností. Spoločnosť Gartner definuje internet vecí pomerne jednoducho: „Internet vecí je sieť fyzických objektov, ktoré obsahujú vstavané technológie pre komunikáciu, snímanie, či interakciu so svojím vnútorným stavom alebo vonkajším prostredím“ [1] Podobne sa vyjadruje aj spoločnosť Cisco, ktorá konštatuje, že internet vecí sa vzťahuje len na sieťové prepojenie fyzických objektov, ktorý má byť súčasťou tzv. internetu všetkého – internet of everything, a definuje ho ako sieťové prepojenie ľudí, procesov, údajov a vecí. The Global Standards Initiative on Internet of Things v súvislosti s IoT hovorí o globálnej infraštruktúre pre informačnú spoločnosť umožňujúcu rozšírené služby prepojením fyzických a virtuálnych vecí na základe existujúcich a vyvíjajúcich sa interoperabilných informačných a komunikačných technológií. [2] Podľa autora Pavla Pohanku ktorý hovorí, že najvýstižnejšia je definícia Internet vecí znamená: sieť prepojených objektov (vecí), ktoré sú jednoznačne adresovateľné s tým, že táto sieť je založená na štandardizovaných komunikačných protokoloch, umožňuje výmenu a zdieľanie údajov a informácií, ktorých analýzou bude možné docieliť vyššej pridanej hodnoty. [3]

Vec z pohľadu IoT predstavuje neživý objekt fyzický nebo virtuálny, ktorý obsahuje elektroniku, softvér a senzory, prostredníctvom ktorých sníma určité veličiny a poskytuje schopnosť poslúžiť k danému účelu. Jedná sa v podstate o zariadenia, ktoré autonómne poskytujú údaje, ktoré sú obyčajne zdieľané s ďalšími vecami alebo systémami. V rámci internetu vecí vlastne nie sú základom veci, ale údaje, ktoré tieto veci poskytujú. IoT predstavuje koncept, v rámci ktorého si fyzické a virtuálne objekty (veci) vymieňajú údaje cez sieť. Veci môžu byť v rámci internetu vecí prepojené za účelom dosiahnutia nových funkčností.

2 INTERNET VECÍ

Potenciál Internetu vecí si spoločnosti uvedomili v súvislosti s priemyslom 4.0. Hoci pôvodne sa s priemyselným internetom uvažovalo ako o ceste k zlepšeniu prevádzkovej efektivity, ukazuje sa, že firmy môžu výborne profitovať aj v spojení IoT, ako nástroja na hľadanie rastu v neočakávaných príležitostiach. V každom prípade, priemyselný Internet vecí je výrazný trend s nezanedbateľným vplyvom na globálnu ekonomiku.

Na využitie plných výhod IoT však spoločnosti budú musieť zvládnuť tri technologické schopnosti:

1. senzorovo riadené výpočty,
2. priemyselné analýzy,
3. aplikácie inteligentných strojov.

Spojením týchto troch schopností sa vytvorí náhrada za dnešné oddelené svety informačných technológií a operačných technológií. Infraštruktúra, ktorá sa vyvíjala oddelene a špecificky, sa postupne nahradí za platformy schopné spolupráce. Tým vznikne nová generácia inteligentných zariadení a otvoria sa nové možnosti na rast.

2.1 Štyri základné oblasti využitia pre firmy

Zavádzanie IoT vo veľkom merítku donúti spoločnosti meniť spôsob, akým fungujú a realizujú biznis aktivity. Procesy sa stanú adaptívnymi a riadenými udalosťami, ktoré sa udejú v skutočnom svete. Vzhľadom na obrovské množstvo objektov schopných komunikovať svoj stav, vzniká istý stupeň chybnosti dát. Preto pre správne rozhodovanie na základe takýchto dát bude potrebné kategorizovať jednotlivé dôveryhodnosti udalostí. Takisto treba brať nie len nedôveryhodné dáta ako také, ale aj nedôveryhodné objekty v sieťach IoT. Bude potrebné napríklad rozlíšiť, či objekt, ktorý sa nehlási, tak robí pre

poruchu, alebo len preto, že nedošlo k žiadnej zmene stavu. Takéto komplexné správy bude potrebné pravidelne auditovať pre ich správnosť. Celý tento proces sa bude musieť niesť v duchu decentralizácie, kde nebude efektívne kontrolovať obrovské množstva samostatných objektov ako jeden celok. Internet vecí môžu firmy využívať v štyroch základných oblastiach.

a) Optimálnejšie využitie aktív IoT

umožní optimálnejšie využitie kapacity alebo disponibilného prevádzkového času objektov, ktoré dokážu vyhodnocovať svoj stav a informovať o ňom v reálnom čase. Nemusí sa jednať iba o zariadenia, ale aj o miesta, ako napr. zasadacie miestnosti alebo parkoviská. Spoločnosti, ktoré prevádzkujú zariadenia umiestnené u zákazníkov, alebo v teréne, ako napr. automaty s občerstvením, zberné odpadové nádoby, môžu vďaka komunikácii s jednotlivým zariadeniami optimalizovať plán ich dopĺňania, vyprázdňovania a ušetriť tak čas a náklady na ich fyzickú návštevu.

b) Speňažovanie aktív na základe ich skutočného využitia

IoT umožní fakturáciu za využívanie aktív na základe ich skutočného používania. Ako príklad môže poslúžiť poistenie motorových vozidiel, ktorého výška závisí nielen od typu a ceny vozidla, ale aj od počtu najazdených kilometrov, spôsobu jazdy (agresívne jazdenie) a miest, na ktoré vodič jazdí. Umožnia to telematické systémy zabudované výrobcami v automobiloch, ktoré môžu tieto dáta odovzdávať poisťovniam. Technológiu IoT možno využiť aj na sledovanie objemu prepravovaného tovaru, vyťaženia kapacity, či spotreby paliva. Pre firmy prináša nové možnosti, ako napr. zníženie investičnej náročnosti, vďaka nahradeniu kapitálových investícií platením za skutočné používanie, lepšie plánovanie opráv a údržby používaných aktív, či sledovanie životného cyklu produktu.

c) Monitorovanie systémov, procesov a okolia

Do tejto kategórie patria technológie na sledovanie výrobných procesov a ich optimalizáciu, či senzory snímajúce počasie a vlastnosti pôdy, ktoré umožňujú optimalizovať zavlažovanie a hnojenie poľnohospodárskej pôdy a eliminujú potrebu fyzickej kontroly. Digitálne billboardy môžu sledovať okoloidúcich, vyhodnocujú, o aký typ spotrebiteľov ide, a na základe toho prispôsobujú zobrazený obsah. RFID (Radio Frequecy IDentification) identifikátory umiestnené na výrobkoch umožňujú sledovať ich pohyb v rámci distribučného reťazca a optimalizovať úroveň zásob.

d) Poskytovanie informácií alebo služieb prostredníctvom objektov

Distribučný reťazec sa fyzicky končí v momente, keď je produkt dodaný finálnemu zákazníkovi. Ak je však produkt digitálne pripojený, reťazec existuje naďalej a umožňuje dodávať ďalšie digitálne služby a produkty. Príkladom môže byť zasielanie varovného signálu používateľovi zariadenia o tom, že hrozí poškodenie súčiastky alebo jej prehriatie, automatické sťahovanie aktuálnejších verzií aplikácií, ktoré zariadeniu poskytnú nové funkcionality, alebo sťahovanie a prehrávanie filmov na sedadlách železničných vagónov. Medzi odvetvia, ktoré budú z IoT najviac profitovať, patrí monitoring zdravotného stavu pacientov v domácnostiach, športové odevy, ktoré zaznamenávajú výkony a fyzický stav športovca a poisťovníctvo, ktorému vzdialený monitoring a zber dát umožní lepšie riadenie a predchádzanie rizika. Výrazné benefity môžu získať sieťové odvetvia - monitoring a riadenie sietí, ale aj poľnohospodárstvo - monitorovanie počasia a pôdy. Tiež v oblasti dát má IoT priniesť zmenu. Teraz väčšina zariadení zbiera dáta a odosiela ich cez internet do centra, kde sú tieto údaje následne spracované a analyzované. Avšak schopnosti zariadení pripojených k internetu sa stále zdokonaľujú a možno predpokladať, že v blízkej budúcnosti budú údaje

v potrebnej miere analyzovať koncové zariadenia sami a budú poskytovať nie iba predspracované dáta, ale spracované, verifikované informácie.

2.2 Využitie IoT v spoločnosti

Spoločnosť vie potenciál pripojenia väčšiny zariadení využiť v mnohých oblastiach, ako sú zdravie, doprava, bezpečnosť, energie, životné prostredie, automobilový priemysel, zdravotné zariadenia, komunikácia a mnoho ďalších. V mestách bude možné využívať inteligentné parkovanie, ktoré zahŕňa monitorovanie parkovacích miest a priame navedenie auta na voľné parkovacie miesto. Taktiež budeme vedieť monitorovať stavby a ich "zdravie", kde nám budovy pripojené na internet budú hlásiť stav ich materiálu a štruktúry a v prípade nebezpečenstva ľahšie predídeme rozpadu budov, mostov a historických pamiatok. Inteligentné osvietenie miest zahŕňa osvetlenie, ktoré sa prispôsobí počasiu a osvetleniu, bez toho aby to nastavoval človek. V prírode a životnom prostredí sa bude monitorovať oheň, znečistenie ovzdušia prostredníctvom kontroly CO2 vo vzduchu a taktiež toxických plynov. Bude možnosť predchádzať lavínam, zosuvom pôdy a zemetraseniu.

2.2.1 Inteligentné cestovanie a autá

Exituje zariadenie, ktoré sa pripojí prostredníctvom bluetooth k inteligentnému telefónu a na konci každej cesty vypíše presne koľko kilometrov auto najazdilo, koľko spálilo nafty, alebo benzínu, spolu v naturálnom aj v peňažnom vyjadrení a priemernú spotrebu za kilometer. Zariadenie môže sledovať aj efektivitu jazdy, prekročenie limitu, príliš rýchle rozbiehanie. Taktiež má zabudovanú funkciu kontaktovania blízkych osôb v prípade nehody. Aplikácia si taktiež pamätá, kde je auto zaparkované. Upozorní nás aj na zapnuté svetlá a vie ich na diaľku vypnúť. V budúcnosti sa predpokladá že takéto zariadenia budú bežne zabudované v našich autách a nazbierané dáta budú odosielať do centrály výrobcov vozidiel. Výrobcovia ich môžu použiť k zlepšeniu svojich modelov, ale taktiež poskytovať ďalším spoločnostiam ako sú poisťovne a tie budú vedieť ako bezpečne jazdíme a prispôsobiť nám poistku auta, či už v kladnom, alebo zápornom slova zmysle. Prevádzkujú sa tiež systémy, vďaka ktorým je vozidlo schopné sledovať aktuálne prostredie a napr. dokáže automaticky spomaliť alebo zastaviť, ak pred ním idúci automobil spomalí. Vďaka týmto vlastnostiam sa má predísť mnohým nehodám.

2.2.2 Internet vecí a zdravotníctvo

Chyby sa v zdravotníctve vyskytujú najmä preto, že všetky zdravotnícke zariadenia pracujú samostatne a nespolupracujú spolu. Aktuálne neexistuje žiadny spôsob, ako kombinovať informácie zo všetkých zariadení a tak dostatočne a v predstihu komplexne pochopiť stav pacienta. Mnohokrát sa spustí falošný poplach a potom ten ozajstný ostáva bez povšimnutia. S príchodom internetu vecí a postupného pripájania stále väčšieho počtu zariadení, prichádza prelom aj v oblasti zdravotníctva. Spoločnosti vyvíjajú mnoho prístrojov, ktoré môžu v budúcnosti zachraňovať životy. Veľmi účelné sú napr. detské monitory, ktoré posielajú rodičom reálne a aktuálne informácie o tom, či ich dieťa dýcha, o teplote kože a pozícii v spánku. Takéto monitory zasielajú informácie rodičom priamo na ich telefóny.
Boli vyvinuté inteligentné inzulínové injekcie, aby sa pomohlo diabetikom lepšie ovládať množstvo inzulínu a zdravotný stav. Je to akési elektronické pero, ktoré sa vzhľadom podobá na ostatné inzulínové perá na trhu. Bezdrôtovo prenáša dáta do mobilnej aplikácie.
Súčasťou lieku môže byť senzor, ktorý skúma, či pacient berie lieky podľa toho, ako mu boli predpísané. Keď tabletku pacient prehltne a príde až do žalúdka, vyšle signál priamo cez pacientove telové tkanivá až k náplasti, ktorú ma prilepenú na tele a táto náplasť prenesie dáta do telefónu, kde sú dostupné opatrovateľovi alebo lekárovi. Ďalším prístrojom, ktorý je určený ako zdravotnícka pomôcka, ale aj pomôcka pri cvičení je flexibilný náramok, ktorý

môžeme nosiť neustále. Má tri senzory, ktoré zbierajú dáta o našom zdravotnom stave a následne nás informujú o našom fyzickom stave. Senzory merajú teplotu, tep a telesnú aktivitu. Internet vecí sa prejaví aj v odvetví farmácie. Balenia liekov bude možné vybaviť inteligentným štítkom, ktorý prináša veľa výhod. Prostredníctvom štítku sa budú sledovať lieky v dodávateľskom reťazci a tak sa zabráni distribúcii falošných liekov. Ďalej bude možné sledovať dodržiavanie špecifických podmienok skladovania a odhaliť balenia liekov po dátume expirácie. [5]

2.2.3 Internet vecí a životné prostredie

Internet vecí môže spraviť našu planétu čistejšiu a lepším miestom pre život. Senzory môžu monitorovať znečistenie, či už vôd, lesov, alebo ovzdušia. Inteligentné ohrievače a radiátory, ktoré taktiež pomocou senzorov môžu regulovať teplo v miestnosti aj v celom dome pomôžu prestať plytvať energiami a v konečnom dôsledku nám aj znížia účty za teplo. Nové technológie v poľnohospodárstve dokážu šetriť vodu a to takým spôsobom, že dajú rastlinám len presne toľko, koľko potrebujú. Na druhej stránke nám a našej planéte tento nový trend môže samozrejme aj uškodiť. Výroba všetkých nových prístrojov znamená aj zvýšenie spotreby materiálu, ale aj energií, tým pádom aj viacej odpadu nie len z výroby, ale aj zo starších zariadení. Všetky staršie zariadenia, ktoré ešte nie sú pripojené na internet sa budú zamieňať a taktiež sa predpokladá, že aj novšie zariadenia sa budú častejšie meniť a tým vznikne neskutočné množstvo odpadu. Aj keď existuje mnoho spoločností, ktoré bezplatne recyklujú elektroniku, ale aj tak je to zbytočné plytvanie, preto bude do budúcnosti potrebné vyrábať zariadenia s dlhšou životnosťou. Odborníci sa však boja, že to nie je možné, keďže spoločnosti potrebujú, aby sa kupovali ich nové výrobky každých pár rokov, dokonca aj častejšie. Asi najväčším ohrozením nášho životného prostredia je množstvo energie použité servermi, ku ktorým sú zariadenia pripojené, aj keď sa tieto centrá snažia vyrábať tak, aby využívali čo najmenej elektrickej energie ako je možné. V oblasti obnoviteľnej energie, spoločnosť General Electric vyvinula veterné turbíny, ktoré obsahujú senzory a kontrolky pre lepšie monitorovanie vetra, turbíny sa vetru prispôsobia a tým dokážu vyrobiť oveľa väčšie množstvo energie. Taktiež vďaka týmto senzorom vedia turbíny na základe vetra predpovedať počasie. Mesto Amsterdam podpísalo zmluvu so spoločnosťou Cisco, ktorá sa zaoberá internetom vecí a senzormi, aby pre nich vytvorili a implementovali inteligentné pouličné osvetlenie, a tým taktiež ušetria energie. Taktiež chcú nainštalovať senzory do odpadkových košov, aby hlásili smetiarom, keď sú plné a treba ich vyprázdniť. Vo všeobecnosti sa predpokladá, že internet vecí bude viacej prínosom ako škodlivým pre našu planétu. Pretože, keď zabudujeme do vecí senzory a budeme ich môcť skúmať a ovládať na diaľku, nebudeme k nim musieť chodiť. Aj keď minieme energiu v dátovom centre, ušetríme napríklad na palive, ktoré by spotrebovalo auto, využité na skontrolovanie monitorovanej veci. John Deere je spoločnosť, ktorá vyrába poľnohospodárske zariadenia. Pre poľnohospodárstvo sa taktiež začali vyrábať zariadenia, pripojené k internetu. Senzory monitorujú úroveň vlhkosti a odosielajú dáta cez bezdrôtové pripojenie pre poľnohospodárov. Tieto senzory merajú aj teplotu vzduchu a pôdy, rýchlosť vetra, vlhkosť vzduchu, slnečné žiarenia, zrážky, vlhkosť rastlín. Údaje pomôžu farmárom zistiť, kedy dosiahli rastliny optimálnu úroveň vlhkosti. S týmito informáciami vedia poľnohospodári naplánovať včas zavlažovanie. [6]

2.2.4 Automatizácia domácností a budov

Aj napriek tomu, že od toho, ako bol prvý krát spomenutý pojem internet vecí ubehlo už niekoľko rokov, až dnes naberá tento pojem aj reálny charakter. Ľudia prichádzajú s nápadmi pripojiť predmety každodennej potreby k internetu. Miesto, kde využívame tieto predmety najviac je hlavne naša domácnosť. Ako konštatuje autor Jurík „cieľom inteligentnej domácnosti je uľahčiť jej obyvateľom život so zámerom maximalizovať bezpečnosť, komfort

a pohodlie, prípadne redukovať spotrebu energií. Celé je to postavené na vzájomnom prepojení všetkých technických, resp. technicky ovládateľných zariadení prostredníctvom riadiacej jednotky, ktorá predstavuje akési „srdce“ domu. Táto jednotka môže komunikovať so všetkými k nej pripojenými zariadeniami a môže tak ovládať napr. osvetlenie, vnútornú teplotu v dome, audiovizuálnu techniku, kuchynské spotrebiče, centrálne riadené vysávanie, vykurovanie, vetranie, zavlažovanie záhrady, prípadne trávnika pri dome, činnosti súvisiace s bezpečnostnými opatreniami v rámci celého objektu a pod.“ Centrálna riadiaca jednotka je s ostatnými súčasťami poprepájaná prostredníctvom elektroinštalácie. Systém ako celok má modulárnu štruktúru, a preto má klient spravidla možnosť si vybrať, čo všetko má byť súčasťou finálneho riešenia. Môže si teda vybrať určité konkrétne moduly z ponúkanej palety potenciálnych modulov. Od počtu a typu zvolených modulov sa odvíja potom aj konečná cena konkrétneho riešenia, príp. môže riešenie pozostávať z určitej množiny pevne stanovených modulov, ku ktorým je možné zvoliť si niektoré z ponúkaných doplnkových modulov. Medzi moduly inteligentnej domácnosti môžu patriť napr.:

- vykurovanie a klimatizácia,
- biometrický prístup do budovy,
- kamerový systém a prenos video signálu na diaľku,
- meranie spotreby energií,
- regulovanie a riadenie osvetlenia,
- ovládanie roliet a žalúzií,
- distribúcia audio a video signálu v dome,
- automatizované otváranie a zatváranie okien,
- regulácia napúšťania vody do vane a jej teploty,
- záhradný zavlažovací systém,
- monitorovanie rýchlosti vetra, vodných zrážok, teplôt a intenzity osvetlenia,
- automatické privolanie polície, príp. záchrannej zdravotnej služby v prípade detekcie podozrivých skutočností a iné. [4]

Pár dotykmi na tablete, alebo dotykovom inteligentnom telefóne môžu používatelia zapnúť, alebo vypnúť svetlá, odomknúť dvere a zistiť, kedy ich deti prišli domov. Mnoho z týchto činností vieme robiť už teraz, ale hlavným cieľom spoločností, ktoré sa touto stránkou zaoberajú je, aby celú domácnosť vedel používateľ ovládať jednou, jedinou aplikáciou. Inštaláciou rôznych senzorov do našich domovov, bytov, ale aj rôznych kancelárskych, či priemyselných objektov, môžeme ušetriť energie, čas a zvýšiť komfort bývania. Zmyslom inštalácie senzorov je vytvoriť takzvané inteligentné domy. Vývoj bezdrôtových technológií, počítačových systémov spolu so znižovaním cien v tomto odvetví zaistí, že inteligentné domy budú dostupné pre všetkých. Senzory budú monitorovať teplotu, vlhkosť aj zbytočné svietenie v miestnostiach, kde sa nikto nenachádza. Na základe nameraných hodnôt sa nastaví optimálny odber energií tak, aby bol náš domov, čo najviac ekonomický. Technológie sú už v takom štádiu, že senzory sú schopné reagovať aj na telesné funkcie a napríklad v prípade zástavy srdca privolajú pomoc.

2.2.5 Internet vecí a súkromie používateľov

Počet zariadení pripojených na internet sa zvyšuje neuveriteľnou rýchlosťou a nepredpokladá sa spomalenie tohto rastu. Tým pádom sa zvyšuje aj počet dát a informácií, ktoré sa o používateľoch odosielajú spoločnostiam. Preto by sa mali spoločnosti a organizácie zaoberať otázkami súkromia. Najčastejšou spomínanou hrozbou je únik dát. Ľudia už so samotnými počítačmi pripojenými na internet súkromie či už dobrovoľne, alebo nevedomky strácajú. Spoločnosť Google ešte v roku 2010 v súvislosti s ich populárnym internetovým vyhľadávačom prehlásila: “Vôbec nepotrebujeme, aby ste napísali, čo hľadáte. Vieme, kde ste

s vaším súhlasom. Vieme, kde ste boli s vaším súhlasom. Viac, alebo menej, sme schopní vedieť, čo si myslíte."
Nachádzame sa v období, kedy spoločnosti začínajú získavať a skladovať ešte viac súkromných dát. Internet vecí prináša úplne novú úroveň súkromných informácií posielaných spoločnostiam. Nejedná sa len o náš dom a naše zariadenia pripojené k internetu, ale aj o senzory, ktoré budú na uliciach, cestách a v obchodoch. Keďže IoT sa stane dôležitou súčasťou internetu budúcnosti a súčasťou kritických národných a medzinárodných infraštruktúr, bezpečnosť sa stáva preto kľúčovou. Implementácia vo veľkom meradle prináša riziká útokov a krádeže dát. Preto je potrebné prispôsobiť a zároveň budovať infraštruktúru takým spôsobom, aby dané riziká brala do úvahy. Súkromie dát zabezpečia rôzne techniky kryptografie, zároveň vysoká kontrola úrovní prístupu používateľov IoT k jednotlivým častiam dát. Zároveň decentralizácia napomôže udržiavať dáta na lokálnej úrovni ako aj vytváranie virtuálnych identít za účelom využitia určitých služieb ale zachovaní anonymity reálnej identity používateľa príslušnej služby. [7]

3 ZÁVER

Internet vecí je novodobý, nesmierne napredujúci koncept s pokrokovou a zaujímavou víziou, ktorá ho predurčuje na úspech vďaka zvyšovaniu používateľského komfortu automatizovaním širokého spektra každodenných činností v rôznych odvetviach a sférach. Internet vecí neposkytuje široký priestor a možnosti len pasívnemu používateľovi, ale predstavuje obrovské príležitosti aj pre potenciálneho podnikateľa. Do budúcna je viacerými poprednými technologickými spoločnosťami predpovedaný raketový nárast pripojených IoT zariadení a s nimi aj spoločností, ktoré ich budú poskytovať. V súčasnom rozvoji tohto konceptu je práve jedinečná možnosť túto šancu uchopiť a prísť s inovatívnymi nápadmi, ktoré prinesú ďalšie benefity koncovým používateľom. Siete v budúcnosti už nebudú znamenať iba prepojenie rôznych používateľov, ale vznikne aj prepojenie so životným prostredím, infraštruktúrou, s priemyselnými zariadeniami a všetkými oblasťami nášho života. Dá sa očakávať premena sietí na dynamické siete, ktoré sa budú neustále vyvíjať v reálnom čase. To znamená, že začneme žiť v celkovom inteligentnom prostredí, s veľmi vysokou výpočtovou kapacitou a schopnosťou virtuálne sa prezentovať. Najväčšia výhoda internetu vecí je, že do neho môžeme zapojiť čokoľvek, kohokoľvek, bude prístupný akoukoľvek cestou, kedykoľvek a z ktoréhokoľvek miesta. Bude to všadeprítomný prepojovací článok fyzického, reálneho sveta so svetom kybernetickým.

Použitá literatúra

1. Dostupné na internete: https://www.gartner.com/it-glossary/internet [cit. 12.12.2017]
2. Dostupné na internete: http://www.itu.int/en/ITU-T/gsi/iot/Pages/default.aspx [cit. 12.12.2017]
3. Dostupné na internete: http://i2ot.eu/internet-of-things/ [cit. 12.12.2017]
4. JURÍK, Pavol. Inteligentná domácnosť: prínos či riziko? In Mladá veda AIESA 2016: participácia doktorandov a mladých vedeckých pracovníkov na budovaní spoločnosti založenej na vedomostiach. Medzinárodná vedecká konferencia. *Mladá veda AIESA 2016 : participácia doktorandov a mladých vedeckých pracovníkov na budovaní spoločnosti založenej na vedomostiach : zborník : 9. medzinárodná vedecká konferencia : 11. november 2016, Bratislava* [elektronický zdroj]. - Bratislava : Vydavateľstvo EKONÓM, 2016. ISBN 978-80-225-4306-4, s. 22-28
5. Wired.com, Pripojené zdravotnícke prístroje, Dostupné na internete http://www.wired.com/2014/06/connected-medical-devices-apps-leading-iotrevolution-vice-versa/ [cit. 12.12.2017]
6. Vermesan, O. – Friess, P.: Internet of Things: Technologies for Smart Enviroments and Integrated Ecosystems. 1. Vyd. Aalborg: River Publishers, 2013. s. 225. ISBN 9788792982735

7. Mojandroid.sk, Naše súkromie a internet vecí, [Dátum: Február 2015], Dostupné na internete https://www.mojandroid.sk/tema-nase-sukromie-internet-veci-sme-v-ohrozeni/ [cit. 12.12.2017]
8. SMITH, Ian G., ed. The Internet of Things 2012: new horizons. Halifax: IERC, 2012. 360 s. ISBN 9780955370793

Kontaktné údaje

Ing. Magdaléna Cárachová, PhD.,
Ekonomická univerzita v Bratislave, KAI, FHI,
Dolnozemská cesta 1, 852 35 Bratislava,
e-mail: carach@euba.sk

OPTIMISED RAIN EVENT SELECTION STATISTICS FOR SATELLITE PROPAGATION

Bernard Adjei-Frimpong, Laszlo Csurgai-Horvath

Abstract

The European Space Agency (ESA) in cooperation with Inmarsat launched the Alphasat communication satellite in 2013 with an experimental payload developed under the frame of ARTES 8 telecom program. The Aldo Paraboni payload is hosting two coherent beacons to carry out scientific measurements in the Ka and Q band. Wave propagation characterization and rain attenuation measurements are done in order to qualify the radio channel and improve the existing propagation models. In this paper we detail our measurements and compare them with ITU-R recommendations. To compare the measured rain attenuation with ITU models it is essential the appropriate selecting the rain events in the time series. In this paper, we present the results of measurements and also manually selected rain events where the goodness of selection is qualified by ITU-R P.837 rain probability.

Keywords: *rain attenuation, fading statistics, event selection*

1 INTRODUCTION

The propagation effect of radio waves on the performance of wireless communication systems operating at frequencies above 10GHz is very significant. Therefore, it is important to carry out propagation measurement taking local climatic data into consideration using ITU-R rain attenuation prediction recommendation for as accurate as possible the prediction of performance of radio communication applications operating at these frequencies. These ITU-R recommendations were developed to mainly assist in designing effective satellite-earth communication links.

In order to produce accurate predictions from the relevant ITU recommendations such as ITU-R P.618 [1] and ITUR P.837 [2] and local climatic conditions play a major role in this process. Nevertheless, radio propagation attenuation assessments due to rain, basically rely on ITU-R P.837 recommendation, based on the local rainfall measurement data obtained.

The ITU-R P.837 recommendations contain maps of the R0.01% parameter have been generated using ECMWF database. These recommendations were developed using rain attenuation statistics for rainfall environments native to each country; thus, owing to their peculiarities, therefore, are used to study the effects of rain attenuation in the rainfall environment of any country and regional location.

In the paper, we have manually selected the rain events from rain attenuation data measurements, gathered from Alphasat experimental payload at Budapest University of Technology and Economics (BME) receiver station [1] and subsequently processed to obtain the attenuation statistics of the rain event predictions.

2 DESCRIPTION OF THE ALPHASAT PROPAGATION EXPERIMENT

The Alphasat is a European satellite launched in 2013, with two beacons to spear head wave propagation characterization in the Ka (19.701GHz) and Q (39.403GHz) band respectively**.** The Alphasat beacon receiver station is located on top of the department's building at BME, N47.48° latitudes and E19.06° longitudes at a height of 120m [1]. The building blocks of the receiver station are modified terrestrial microwave radio equipment with several hardware and firmware modifications. Both the Ka and the Q-band receivers are based on identical ODU

construction; the difference is only the frequency of the locally synthesized signals to provide an identical 140MHz IF frequency (Figure 1). As the orbit of Alphasat is low-inclination geosynchronous a tracking system is also operated in order to eliminate the daily variation of the received signal power.



Figure 1. High performance antennas with tracking system

The ODU is a double conversion heterodyne receiver with synthesized local signal sources. Its noise figure has been reduced from 5dB to 3dB and in order to generate a stable and jitter-free down-converted intermediate frequency (IF) signal, the oscillator block in the ODU is also changed. The reference oscillator of the synthesizers is now designed to achieve a high stability, low phase noise OCXO with less than ± 1.0 ppb/day stability. The down-converted, filtered (bandwidth=100kHz) and amplified IF signals are connected with a low attenuation coaxial cable to the indoor unit (IDU) and the calibrated gain of the ODU is 100dB.
The indoor unit is based on a modified I-Q demodulator that processes the incoming IF signal. The 140 MHz IF signal is under sampled with 80MHz analog/digital converter unit. The role of the quadrature digital downconverter (QDDC) module is to convert down the sampled signal into baseband quadrature component signals. The baseband signals (I, Q) are decimated (512) and filtered by CIC and FIR filters.
The ODU also contains an internal temperature sensor with 1°C accuracy. This sensor is used for the temperature-compensation of the ODU's amplifier circuits. During the calibration of the ODU in a thermal-chamber the temperature-dependency of the complete receiver chain was determined. The firmware has a built-in compensation table; therefore, the result is a temperature-independent, high accuracy level measurement. The temperature-compensated values are averaged and fed to a fine gain control unit that ensures the nominal 100dB ODU gain.
The filtered and decimated signal is processed by an 8192 point FFT where the beacon signal can be detected as the highest amplitude spectral component. The carrier amplitude measurement is performed within 1 second and the final data is forwarded after a logarithmic conversion to the data collecting system. The resolution of the received power is 0.2dBm. By taking into account the speed of A/D conversion, the decimation and the FFT buffer size, the system bandwidth is 80MHz/512/8192=19.07Hz.

3 IMPLEMENTATION OF ITU-R RAIN ATENNUATION MODELS

ITU-R P.618 recommendation can be applied to calculate rain attenuation statistics for satellite-Earth radio links, that can be compared with measured data in order to qualify the receiver station and also to draw conclusions about the variations caused by the local climatic environment.

The ITU-R P.618 rain attenuation model uses the rain rate at 0.01% probability level for attenuation estimation. This model has been derived on the basis of the log-normal distribution, and the point rain intensity and attenuation distribution generally conform to the log-normal distribution. Inhomogeneity in rain in the horizontal and vertical directions is accounted for in the prediction. This model is applicable across the 4–55 GHz frequency range and the 0.001–5% percentage probability range. The estimates of the long-term statistics of the slant-path rain attenuation at a given location for frequencies up to 55 GHz are obtained according to the procedure given below. The following parameters are used in this calculation:

$R_{0.01}$: point rainfall rate for the location for 0.01% of an average year (mm/h)

h_s : height above mean sea level of the earth station (km)

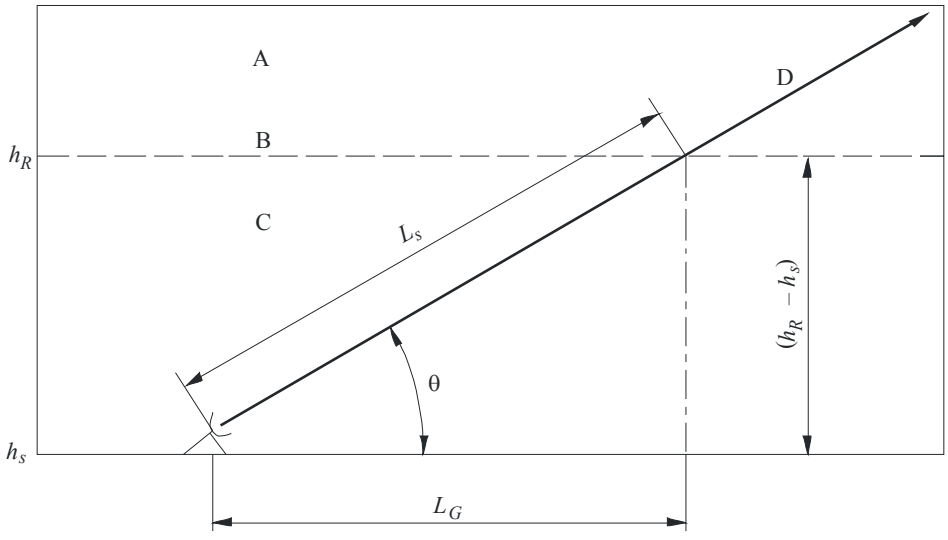
θ : elevation angle (degrees)

φ : latitude of the earth station (degrees)

f : frequency (GHz)

R_e : effective radius of the Earth (8 500 km).

When local data for the station height above mean sea level is not available, an estimate can be obtained from the maps of topographic altitude given in Recommendation ITU-R P.1511 [4]. These procedures are provided here, with the line-by-line model presented first, followed by the approximation to the models.



A: frozen precipitation
B: rain height
C: liquid precipitation
D: Earth-space path

P.0618-01

Figure 2. Rain height calculation based on ITU-R [2]

This method provides an estimate of the long-term statistics of attenuation due to rain. When comparing measured statistics with the prediction, allowance should be given for the rather large year-to-year variability in rainfall rate statistics (see Recommendation ITU-R P.678 [5]). The beacon receiver stations (as our station at BME as well) are usually record the received signal power. In order to get attenuation statistics the received signal should be converted to attenuation. This can be done by applying different methods, but they are influencing the precision of the attenuation statistics estimation as well. The key issue is how we determine the clear sky level, as the reference level. In lack of a radiometer (as it is also at BME) the simplest method to apply the long-term median or mean value of the received power time series as reference level. To take into account the long-term signal variations a more effective method is to select manually the individual rain events. As ITU-R P.837 [3] gives the probability of rain at a specific geographical location the value predicted from attenuation measurements should correspond with it and in this way, it may prove the quality of rain event selection as well.

The basic principle of ITU-R837 involves the use of a database of parameters (*Pr*6, *Mt*, and *β*), This database is available from the website of ITU's 3M group. The method to derive the rain rate exceeded for a given probability of the average year, and a given location is as follows.

Step 1. Extract the variables (*Pr*6, *Mt*, and *β*) for the four points closest in latitude (Lat) and longitude (Lon) to the geographical coordinates of the desired location. The latitude grid extends from +90◦N to −90◦S in steps of 1.125 steps; the longitude grid extends from 0◦ to 360◦ in steps of 1.125.

Step 2. From the values of *Pr*6, *Mt*, and *β* at the four grid points, obtain the values *Pr*6(Lat, Lon), *Mt* (Lat, Lon), and *β* (Lat, Lon) at the desired location by performing a bi-linear interpolation, as described in Recommendation ITU-R P.1144.

Step 3. Convert *Mt* and *β* to *MC* and *MS* as follows:

$$MC = \beta Mt,\ MS = (1 - \beta)\ Mt \tag{1}$$

Step 4. Derive the percentage probability of rain in an average year P_0, from

$$P_0(Lat, Lon) = P_{r6}(Lat, Lon) \times \left(1 \times e^{-0.0079(M_S(Lat,Lon)/P_{r6}(Lat,Lon))}\right) \tag{2}$$

If *Pr*6 is equal to zero, the percentage probability of rain in an average year and the rainfall rate exceeded for any percentage of an average year are equal to zero. In this case, the following steps are unnecessary.

Step 5. Derive the rainfall rate, P_P, exceeded for $p\%$ of the average year, where $p \le p_0$, from

$$R_P(Lat, Lon) = \frac{-B + \sqrt{B^2 - 4AC}}{2A}[mm/h] \tag{3}$$

where

$$A = ab$$
$$B = a + cLN\left(\frac{P}{P_0(Lat, Lon)}\right) \tag{4}$$

$$C = LN\left(\frac{P}{P_0(Lat, Lon)}\right)$$

$$a = 1.09, b = \frac{M_C(Lat, Lon) + M_S(Lat, Lon)}{21797 P_0}$$

$$c = 26.02b$$

4 RESULTS

It should be take into consideration that an important model parameter for rain attenuation prediction is R_{001}, the rain rate exceeded for 0.01 % of an average year, which characterizes the local climate. According to the precipitation map provided by ITU [3], R_{001} is equal to 35.1mm/h for Budapest. Nevertheless, this constant may be influenced by the actual annual weather conditions causing deviations from the long-term statistics.

In this experiment we processed the time series of measured received power which provides the relevant information and it can be converted to attenuation. As we already mentioned, there are different solutions to do this conversion.

Method 1: The measured values are subtracted from the median (clear sky) received power and has been calculated over an entire year. The attenuation events are mainly caused by rainy periods.

The Complementary Cumulative Distribution Function (CCDF) of rain attenuation provides the probability of exceeding different attenuation levels. Its monthly distributions reveal how the rain events significantly influence the actual weather conditions.

In Figure 2 is displayed the Complementary Cumulative Distribution Function (CCDF) of the measured attenuation for Ka and Q-band together with the distribution curves predicted by the ITU-R P.618 recommendation for an entire year of 2016.

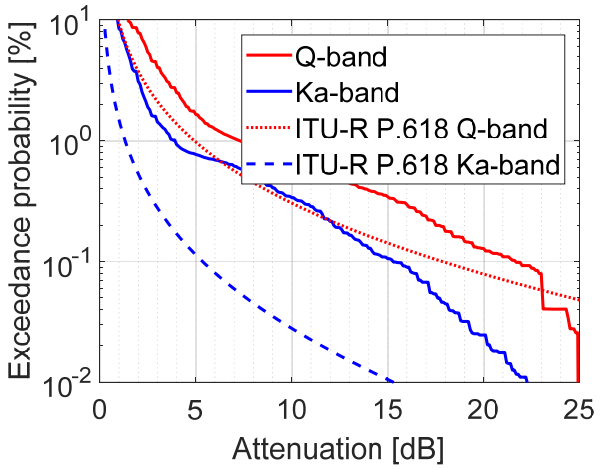


Figure 3. CCDF for Ka and Q band, compared with the ITU-R, clear sky level calculated with median

In order to estimate of the error between measurements and the ITU-R model, the root mean square error (RMSE) has been applied. Therefore, we calculate the RMSE between the measured and the predicted attenuation values using the following $\mathrm{RMSE} = \sqrt{\mathrm{E}\left(\overline{\mathrm{X}} - \mathrm{x}\right)^2}$ as the square root of the expected value of the power of differences between the measured and modelled values. Figure 4 and Figure 5 displays the RMSE for the Q and Ka band respectively.

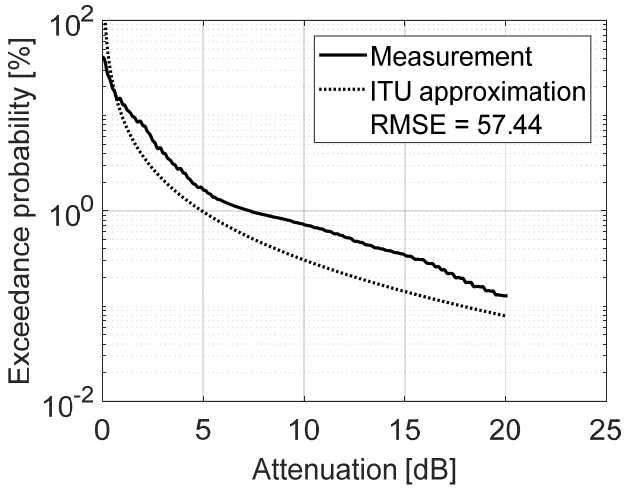


Figure 4. RMSE for Q-band, clear sky level calculated with median

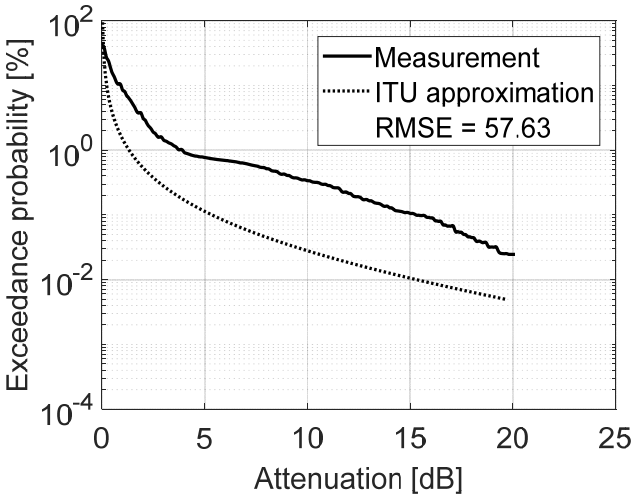


Figure 5. RMSE for Ka-band, clear sky level calculated with median

Method 2: The measured values are subtracted from the mean (clear sky) received power and has been calculated over an entire year. There are no significant changes comparing to the previous one example.

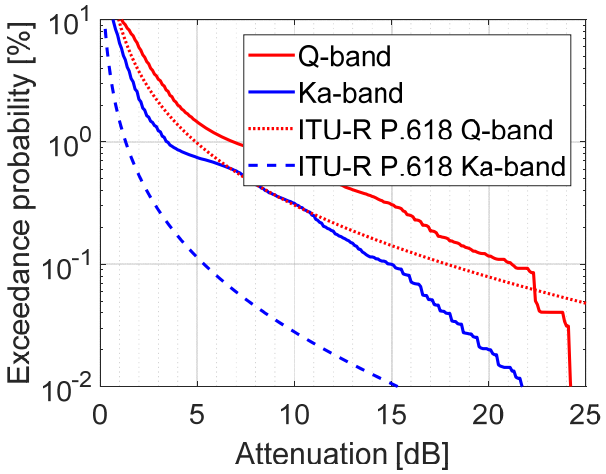


Figure 6. CCDF for Ka and Q band, compared with the ITU-R, clear sky level calculated with mean

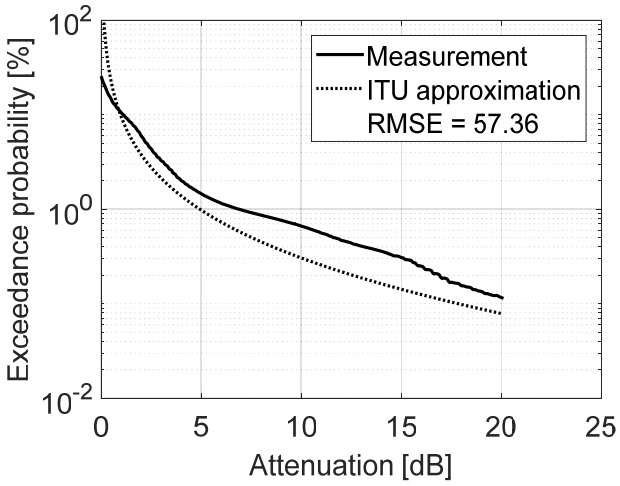


Figure 7. RMSE for Q-band, clear sky level calculated with mean

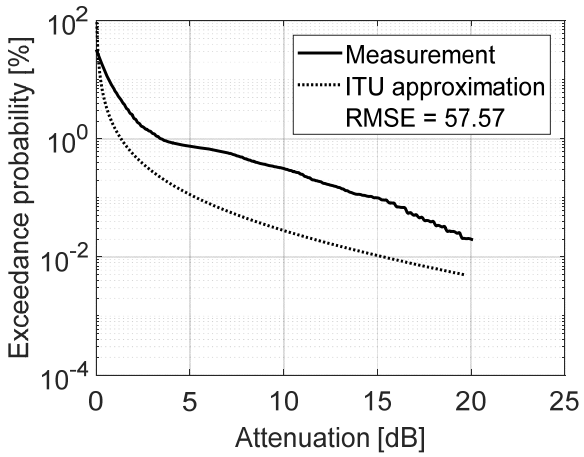


Figure 8. RMSE for Ka-band, clear sky level calculated with mean

Method 3: The rain events are selected manually. The following figure depicts an example if we select the rainy periods manually. The figure is relating to May, 2016 for the Ka-band radio channel.

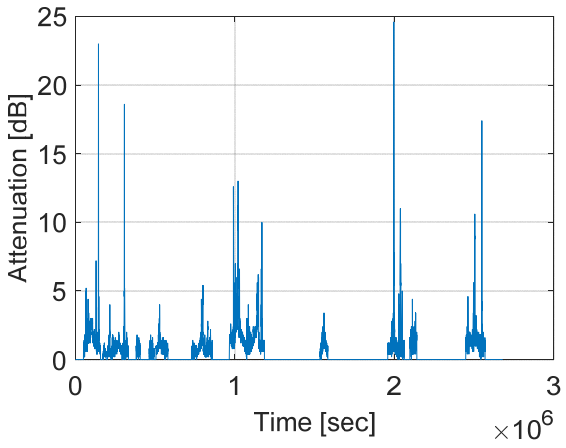


Figure 9. Ka band, manually selected rain events time series, May, 2016

When we apply the manually selected events for first order statistical calculations (attenuation CCDF) a better approximation of the ITU-R curve can be observed (comparing with Figure 8). The result is depicted in Figure 10. for the Ka-band.

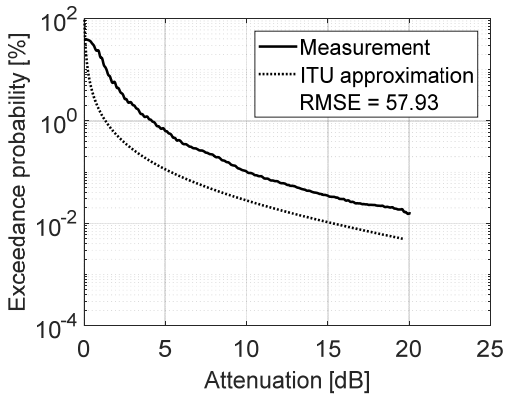


Figure 10. RMSE for Ka-band, manually selected rain events, May, 2016

5 CONCLUSION

In this paper we investigated the satellite-Earth propagation channel in the Ka and Q band and we presented measurement results from the Alphasat beacon receiver station in Budapest, Hungary. The main goal of this paper was to demonstrate how can be converted the received power time series to attenuation time series, and it was demonstrated that by selecting manually the rain events ensure better approximation of the statistics provided by ITU-R . We calculated RMSE errors for the comparison and prove the results.
Future work will be to finish the manual event selection for the whole year that may provide the most accurate rain attenuation statistics for the geographical location of the receiver station.

References

1. Csurgai-Horváth L. et. al., "The Aldo Paraboni Scientific Experiment: Ka/Q Band Receiver Station in Hungary", In Proc. 9th European Conference on Antennas and Propagation, Lisbon, Portugal, 12-17 April 2015.
2. ITU-R P.618-12, Propagation data and prediction methods required for the design of earth-space telecommu-nication systems, International Telecommunication Union, Geneva, Switzerland, 2015
3. ITU-R P.837-7, Characteristics of precipitation for propagation modeling, International Telecommunication Union, Geneva, Switzerland, 2017.
4. Recommendation ITU-R P.1511-1, Topography for Earth-space propagation modelling, ITU, 2015.
5. Recommendation ITU-R P.678-3, Characterization of the variability of propagation phenomena and estimation of the risk associated with propagation margin, ITU, 2015.

Contact

Bernard Adjei-Frimpong
Budapest University of Technology and Economics
Department of Broadband Infocommunications and Electromagnetic Theory
Egry J. u. 18, Budapest, Hungary
Tel: +36 1 463 3685, email: bernard.frimpong@hvt.bme.hu

MEASUREMENT OF PARAMETERS IN IP NETWORKS

Miloslav Filka, David Grenar, Lukas Gregor

Abstract

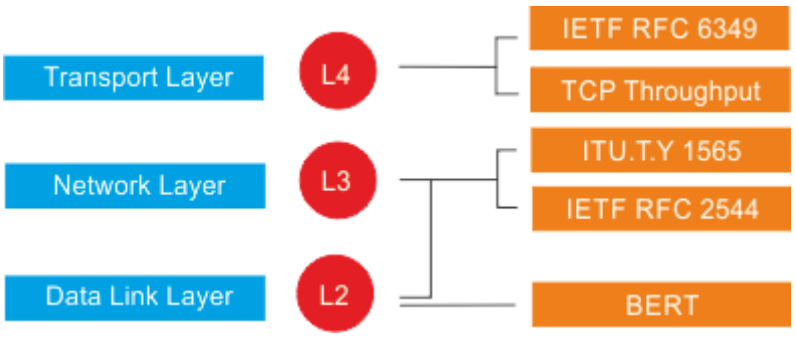
This article is focused on measurement of QoS parameters in packet networks as well as comparison of qualitative parameters within different network features. For the measurements themselves, two devices EXFO FTB-1 Pro were used, which have application NetBlazer V2. The main object of measurement is testing network composed of several network devices, in which the parameters are measured and evaluated based on known standards IETF RFC 2544, IETF RFC 6349 and ITU-T 1564 a BERT. Testing of transmitted parameters within data networks is necessary in order to evaluate level of providing services guaranteed in SLA between provided and customer. Each of mentioned tests are connected with limits of its use in specific conditions. In IP networks are distinguished two basic models for evaluation of quality service. The first QoS model is based on metrics, which are part of this article, and it is intended for evaluation of technical network parameters. In case of QoS model it cannot be established, how the quality of each service satisfy end customer. This problem deals with QoE discipline. Both of the models are closely connected. In case of appropriate application on specified operation type of QoS policy, it will be positively influenced service quality, which is perceived by the end customer.

Key words: *QoS, IETF RFC 2544, IETF RFC 6349, BERT, MEF, QoE, SLA, Quality of Service*

1 KNOWN RECOMMENDATION

Testing of transmission parameters is described in several recommendations, which differ in methodology and composition of each tests. The most known recommendation is IETF RFC 2544, on which are based another tests, that eliminate negatives of this test.

Another difference is, hat test according to different recommendations take place in different layers of reference model ISO/OSI. Breakdown of individual recommendations by layers ISO/OSI model, on which each tests take place is shown in picture 1.1. Based on situation and testing services is necessary to choose appropriate test.



Picture 1.1: Breakdown of individual recommendations by layers ISO/OSI model.

1.1 IETF RFC 2544

Standard RFC 2544 was developed by IETF organization. It is the oldest and known standard for testing of network infrastructure. The whole title of the document is „Benchmarking

Methodology for Network Interconnect Devices“.

The total test is composed of partial subtests, which are used for measurement of throughput, frame loss, delay and back-to-back. Usually this test performed for Ethernet framework for size 64 B, 128 B, 256 B, 512 B, 1024 B, 1280 B, 1518 B.

RFC 2544 was developed mostly for testing of network features and data circles in lab conditions, which was proven as one of the disadvantages. Another negative is time consumption of whole test and impossibility to measure chosen parameters in modern networks. Based on test parameters setting might be total test last for four hours, which is in real operation unacceptable.

Inappropriate is also test composition, when for example for delay is consider only its absolute value, and not also its fluctuations and changes in time, which are important mostly for multimedia services, which use unreliable transport protocol UDP. Fluctuation test of delay (jitter) were lately subdued by each producer as optional within test RFC 2544, but in recommendations cannot be found. Because of above mentioned disadvantages is RFC 2544 fully replaced by new test in present. These test are mostly based on standard ITU-T Y.1564 SAM.

1.2 ITU-T Y.1564

In 2011 was published new recommendation ITU-T Y.1564 by company ITU and it has working title Y.156sam. Complete title of this standard is Ethernet Service Activation Test Methodology. Test is known under different business titles, when for example EXFO use title EtherSAM. Standard was developed in order to eliminate disadvantages of old test RFC 2544, although its support is agreed in modern analyzers.

The main advantage of this test is possibility to measure wide spectrum of transmission parameters, which are throughput, burs ability, frame loss, latency, jitter, availability and protection switching. Test provides complete evaluation of device performance (network) with regard to quality level of providing services based on agreement SLA between customer and provider.

The test was also significantly shortened by testing, which is regularly two hours, but also can be longer into 24 hours or shorter into two minutes. Enormous step forward is possibility to test parallel data flows, which enable to make shorter measurement time for triple play service into one third of time RFC 2544, because it can be tested all services at the same time.

The new feature, which recommendation brings, is possibility of one-way or bi-directional testing, as well as simultaneous test. One-way testing is appropriate for data connection or asymmetric services (for example triple play), which often show different parameters values in each direction. In standard bi-directional testing is used involvement with loopback device at the end of the network, which mirrors data flow operation back to the analyzer. For simultaneous testing are used two analyzers, when at the both ends of the network is allocated one analyzer individually testing both directions. In practice it can happen, that KPI values (Key Performance Indicators) will be for both directions satisfying, but with current strain in both direction could reveal problem in one of the direction, which the classic test will not revealed.

Test is composed of two phases. In the first phase is tested correction of parameters settings guaranteed by SLA, when threshold values CIR and EIR are discovered for each device (connection). The second phase is based on test of service performance. The main aim of the test is to verify mechanism for prioritization or restriction of certain data flows. Within test of service performance are services put enormous emphasis and perceived as one data flow, when collective KPI parameters testing take place for all configured services at once.

1.3 IETF RFC 6349

It is recommendation published by IETF organization. The main advantage in contrast to several test sis usage of transport TCP protocol. The test is suitable for non-realtime service testing, which use reliable TCP protocol. On the other hand, it is absolutely disadvantageous it use for service measurement in real time, which are usually used for data transport of TCP protocol.

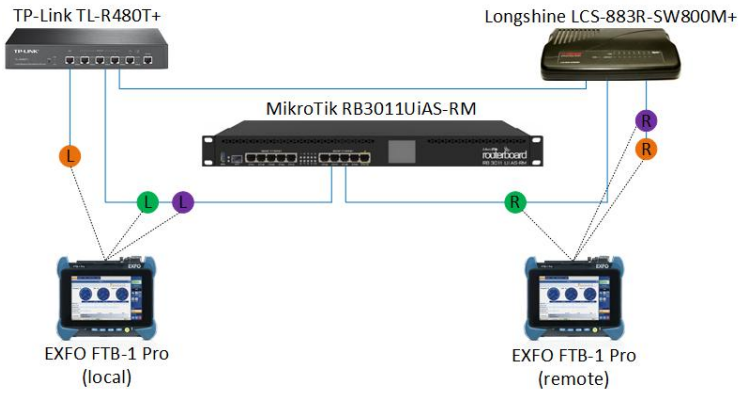
Another reason for creation of RFC 6349 standard was the fact, that testing made on line (L2) and network layer (L3) is not sufficient for operators. They also required the possibility of testing networks on the transport layer that the standard brings.

The test itself takes place in three phases:

1. Identification of MTU line.
2. Measurement of RTT and transmission capacity.
3. Testing of TCP throughput in calculated window size.

Based on results from each test phases are subsequently calculated TCP metrics, which served for better understanding of measurement results. The basic metrics are TCP efficiency, buffer delay and transfer time ratio.

1.4 Testing network



Picture 1.2: Wiring diagram of test network.

In order to test each network feature was conducted testing network, see 1.2., composed of switch Longshine LCS 883R-SW800M+, Routerboard Mikrotik RB3011UiAS-RM and directional TP-Link TL-R480T+. Network features are mutually connected by structured cabling UTP Ca 5e, which support Gigabit Ethernet.

In picture 1.2. are in color marked points, between which individual test were conducted, where indication R/L (Remote/Local) marks location of measurement devices within different

test scenarios. In these points are located measurement devices EXFO, which enable generating and evaluating of testing sequences.

Intentionally was chosen combination of old and modern network features, because they have different network interface. Switch Longshine LCS 883R-SW800M+ and directional TP-Link TL-R480T+ support maximal 100 Megabit Ethernet, although Router Board Mikrotik RB3011UiAS-RM and measurement devices EXFO FTB-1 Pro support until Gigabit Ethernet. Because of technology Auto-Negotiation, which ensure automatic setting and creation of Ethernet channel on level of physical layer for reference model OSI/ISO, however is ensured full compatibility between these devices. In practice this means that in network except devices supported 100 megabit Ethernet will be also device supported gigabit Ethernet forced to use only 100 megabit Ethernet.

1.5 Measurement

Testing according to chosen standard taken place between testing points color marked in diagram of connection, see picture 1.2 in three scenarios.

Topology of network	Colored
TP-Link TL-R480T+ <–> Longshine LCS 883R (100 Mbit/s)	orange
Mikrotik RB3011UiAS-RM <–> Longshine LCS 883R (100 Mbit/s)	violet
Mikrotik RB3011UiAS-RM (1 Gbit/s)	green

Table 1.1: Color distinction of each scenario.

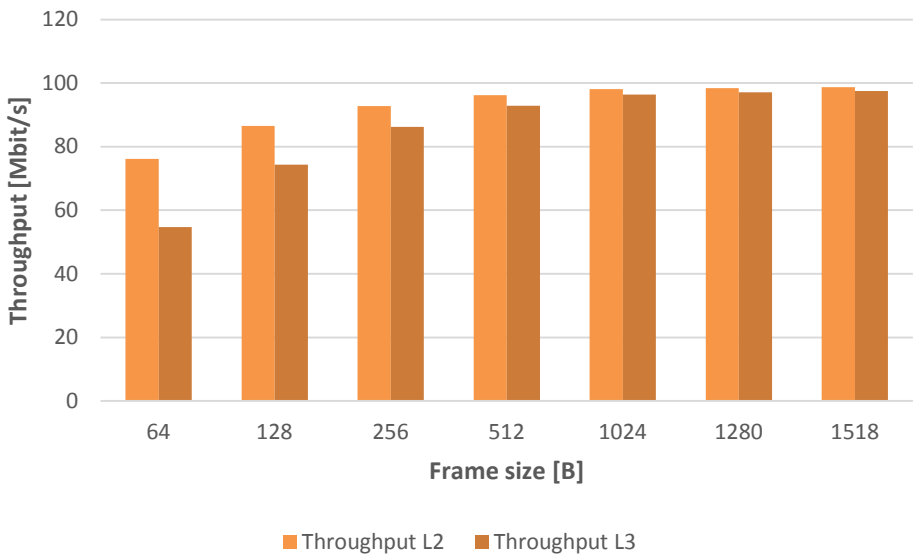
1.6 Measurement accordint to RFC 2544

For generating and evaluating of testing operation of test RFC 2544, which was cinducted in loopback mode, is used measurement device EXFO FTB 1 Pro (local). The second measurement device EXFO FTB-1 Pro (remote) is used as loopback device in régime smart loopback. Each subtest of test RFC 2544 were already mentioned earlier. The part of the test is not fluctuations of delay – Jitter, which is not define in recommendation. For all measurement were calculated zero frame loss. Back-to-back (B2B) evaluates network device cache. By B2B occurs measurement of maximal number of received frames of specific size within maximal transmission speed, until the lost of frame happen. Since the frames have not been lost until the maximum throughput level has been measured, the back-to-back values correspond to maximum throughput values.

TP-Link TL-R480T + Longshine LCS 883R

Frame size [B]	Latence [ms]	Frame Loss [%]	Throughput L2 [Mbit/s]	Throughput L3 [Mbit/s]
64	0,106	0	76,19	54,75
128	0,127	0	86,48	74,32
256	0,166	0	92,75	86,23
512	0,249	0	96,24	92,86
1024	0,41	0	98,08	96,36
1280	0,495	0	98,46	97,07
1518	0,851	0	98,7	97,53

Table 1.2: Measured values for tested devices TP Link + Longshine.

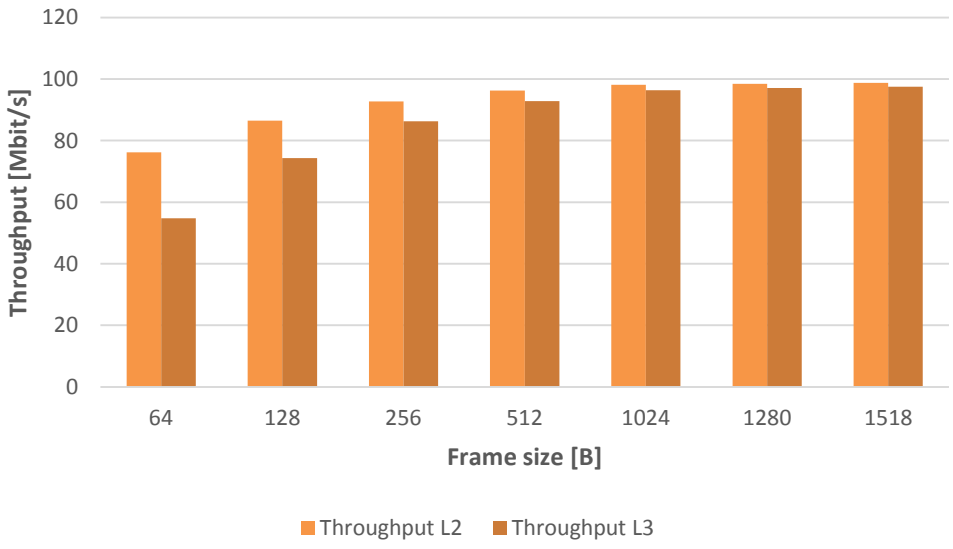


Picture 1.3: Dependency of throughput on frame size according to RFC 2544.

Mikrotik RB3011UiAS-RM + Longshine LCS 883R

Frame size [B]	Latence [ms]	Frame Loss [%]	Throughput L2 [Mbit/s]	Throughput L3 [Mbit/s]
64	0,131	0	76,19	54,75
128	0,162	0	86,48	74,32
256	0,219	0	92,75	86,23
512	0,286	0	96,24	92,86
1024	0,409	0	98,08	96,36
1280	0,475	0	98,46	97,07
1518	0,528	0	98,7	97,53

Table 1.3: Measured valued for testing devices Longshine + MikroTik



Picture 1.4: Dependency of permeability on frame size according to RFC 2544.

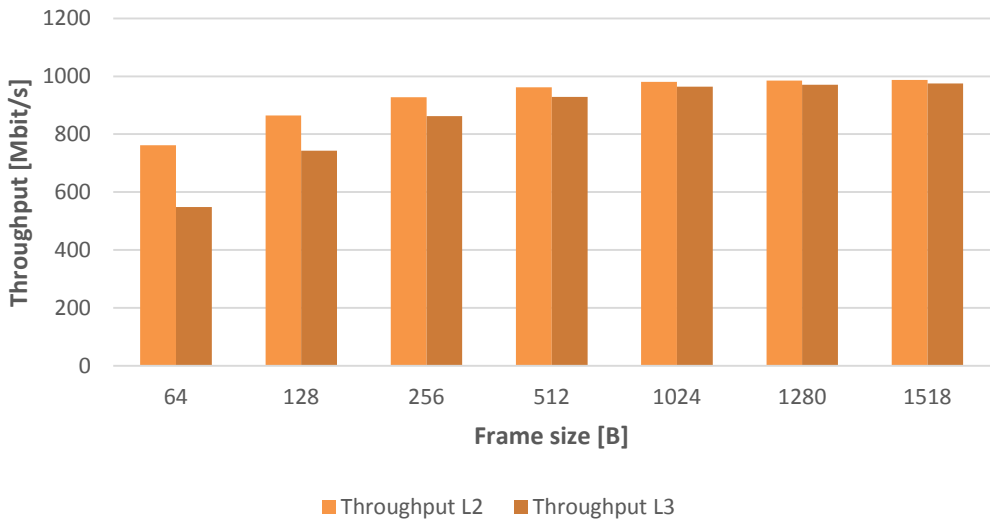
From table 1.4 can be concluded, that testing network composed of switch Longshine LCS 883R and Routerboard Mikrotik RB3011UiAS-RM shown similar throughput values and back-to-back as network created by directional TP-Link and switch Longshine LCS 883R.

Mikrotik RB3011UiAS-RM

The third measurement was already carried out for the device Mikrotik RB3011UiAS-RM itself, which as the only one has gigabit network interfaces. Based on measurement results can be deducted, that Mikrotik RB3011UiAS-RM shown approximately 10x higher data throughput than other devices.

Frame size [B]	Latence [ms]	Frame Loss [%]	Throughput L2 [Mbit/s]	Throughput L3 [Mbit/s]
64	0,0129	0	761,904	547,904
128	0,02	0	864,864	743,243
256	0,028	0	927,536	862,318
512	0,032	0	962,406	928,571
1024	0,039	0	980,842	963,601
1280	0,043	0	984,615	970,769
1518	0,052	0	986,996	975,292

Table 1.4: Measured values for the MikroTik test device.



Picture 1.5: Dependency of permeability on frame size according to RFC 2544.

2 CONCLUSION

Differences in throughput of each devices were already discussed. Interesting fact is difference between throughput on network and line layer of reference model OSI/ISO. Throughput on line layer is logically higher. The principle is based on functioning of each model layers. Directional features work on network layer, where direction is based mostly on software bases, which increase total delays against hardware switching. In case of packet arrival into the switch it is necessary to unwrap IP headers, find out, what are the further directions for the packet, decrease TTL value and recalculate summary. After all, is packet packed again with new values of headers and forwarded to the destination IP address. To this activities within switches, which carry out switching mostly for hardware and line layers, do

not leave. Within frame entrance into switch occurs only for insight into MAC headers for ensuring target address and comparison of target address with MAC table on switch. If target MAC address is known, switch will sent frame into port, where can be found host with target MAC address. In case where target MAC address is not known, directional will act as hub and will broadcast frame into all ports without any bigger delay. Hardware switch on L2 significantly contributes in reducing delays.

Total throughput on L2 and L3 layer grow with size of Ethernet frame. This is because, with the same amount of data transferred, the routing / switching process is performed more than for larger frames, which reduces overall throughput. For small frames with size 64 B was L3 throughput approximately 75 % theoretical maximal throughput for 100 megabit devices and in case of gigabit Routerbord even half. For frames with size 1518 B, which with its size mostly simulates size of standard Ethernet frames, is throughput on L2 and L3 almost 100 %. On the other hand, transmission of larger frames takes longer than transmission of smaller frames. Furthermore, larger frames can occur with fragmentation, which will negatively affect on total delay. Graphical delay representation on frame size is shown in picture 1.6. Differences in delays are mostly shown in third measurement. The first testing network with directional report slightly lower, but very similar delays as testing phase two up to frame size 1024 B. After exceeding frame size 1024 B already shown better values within the second testing. The lowest delays shown only device Mikrotik, which delay was approximately 10 times lower than other devices.

Source

1. IETF. Benchmarking technology for Network Interconnect devices [online]. RFC 2544, Network Working Group, 1999. Available from: https://www.ietf.org/rfc/rfc2544.txt.
2. IETF. Framework for TCP Throughput Testing [online]. RFC 6349, Network Working Group, 2011. ISSN: 2070-1721. Available from: https://www.ietf.org/rfc/rfc6349.txt.
3. ITU-T Recommendation Y.1564. Ethernet service activation test methodology [online]. ITU, 2016. Available from: https://www.itu.int/rec/T-REC-Y.1564-201602-I/en.
4. LAFATA, Pavel a Jiří VODRÁŽKA. Optické přístupové sítě a přípojky FTTx. Praha: České vysoké učení technické v Praze, 2014. ISBN 978-800-1054-635.
5. Metodika pro měření a vyhodnocení datových parametrů pevných sítí elektronických komunikací: (Metodický postup). Praha: ČTÚ, 2016.

Contact information

prof. Ing. Miloslav Filka, CSc.
Department of Telecommunications
FACULTY OF ELECTRICAL ENGINEERING AND COMMUNICATION
BRNO UNIVERSITY OF TECHNOLOGY
Technicka 12, Brno, 616 00, EU
filka@feec.vutbr.cz, www.utko.feec.vutbr.cz

Ing. David Grenar, MBA
Department of Telecommunications
FACULTY OF ELECTRICAL ENGINEERING AND COMMUNICATION
BRNO UNIVERSITY OF TECHNOLOGY
Technicka 12, Brno, 616 00, EU
david.grenar@phd.feec.vutbr.cz, www.utko.feec.vutbr.cz

Bc. Lukáš Gregor
Department of Telecommunications
FACULTY OF ELECTRICAL ENGINEERING AND COMMUNICATION
BRNO UNIVERSITY OF TECHNOLOGY
Technicka 12, Brno, 616 00, EU
xgrego16@stud.feec.vutbr.cz, www.utko.feec.vutbr.cz

THEMATIC DOMAIN | XI.

PŘÍRODNÍ VĚDY

NATURAL SCIENCES

NUMBER OF PAPERS: 8



HODNOTENIE HORMETICKÉHO ÚČINKU ARZÉNU NA RAST KUKURICE SIATEJ (*ZEA MAYS C*V. CHAPALU)

ASSESMENT OF HORMETIC EFFECT OF ARSENIC ON GROWTH OF MAIZE (*ZEA MAYS C*V. CHAPALU)

Beáta Piršelová, Ľudmila Galuščáková, Libuša Lengyelová, Roman Kuna

Abstrakt

Vplyv rôznych koncentrácií arzénu (1, 2, 3 a 5 mg As/kg pôdy) bol testovaný na rast kukurice siatej (*Zea mays* cv. Chapalu). Účinok arzénu bol testovaný pri pestovaní kukurice vo vodných roztokoch a pôdnom substráte. Po 4 dňoch nakličovania v roztokoch arzénu došlo k predĺženiu koreňa o 27-54 % oproti kontrole, zvýšená čerstvá hmotnosť (o 63 %) bola zaznamenaná pri dávke 5 mg/l As. Pri pestovaní v pôdnom substráte sa hormetický účinok arzénu prejavil najmä na výhonkoch. Testované dávky arzénu (2, 3, 5 $mg.kg^{-1}$ pôdy) stimulovali rast výhonkov o 8 % , 6 % a 8 % a zvýšili čerstvú hmotnosť výhonkov o 15 % (As1), 14 % (As2), 11 % (As3) a 10 % (As5). V prípade dĺžky koreňov sa stimulačný účinok prejavil vplyvom dávky As5 (predĺženie o 8 %) a v prípade čerstvej hmotnosti došlo k nárastu o 37% (As1), 29% (As2), 60 % (As3) a 74 % (As5). Obsah sušiny koreňov a výhonkov zostal nezmenený.

Kľúčové slová: *kukurica, arzén, stimulácia, rast*

Abstract

Effect of different concentration of arsenic (1, 2, 3 a 5 mg As/kg of soil) was tested on the growth of maize (*Zea mays* cv. Chapalu). The effect of arsenic was tested thrue the growing in water solutions and soil substrate. After 4 day of germination in arsenic solutions the length of roots was higher by 27-54 % as control. Higher fresh weight of roots (by 63%) was also recorded at dose 5 mg/l As. During the cultivation in the soil substrate, the effect of hormesis of arsenic was manifested mainly on shoots. The tested doses of arsenic (2, 3, 5 $mg.kg^{-1}$ of soil) stimulate the growth of shoots by 8 % , 6 % and 8 %, increased the fresh weight by 15 % (As1), 14 % (As2), 11 % (As3) a 10 % (As5). In case of root length the stimulating effect was shown at dose As5 (extension by 8 %) an in case of fresh weight the higher fresh weight was recorded by 37 % (As1), 29 % (As2), 60 % (As3) and 74 % (As5). The dry matter content of the roots and shoots remained unchanged.

Key words: *maize, arsenic, stimulation,growth*

1 ÚVOD

Arzén je pre rastliny neesenciálnym prvkom. Bežné koncentrácie arzénu v pôde sa pohybujú medzi 1-50 $mg.kg^{-1}$ (Dragun, 1998), s priemernou hodnotou pre svetové pôdy 4,4 $mg.kg^{-1}$ u podzolov a 9,3 $mg.kg^{-1}$ pre organozeme a strednou hodnotou 7,2 $mg.kg^{-1}$ pre pôdy Slovenskej republiky. Pri vyšších koncentráciách je arzén pre väčšinu rastlín toxický. Prvé symptómy toxicity arzénu na rastliny sa prejavujú už pri klíčení, pri mladých rastlinách vädnutím, chlorózami, nekrózami, odumieraním listov, obmedzením rastu a znížením výnosov plodín, pričom narušenie mechanizmu príjmu a translokácie živín sa považuje za hlavný dôvod zníženia vitality rastlín (Päivöke and Simola, 2001).

Hoci arzén nie je esenciálnym prvkom pre rastliny, nízke koncentrácie môžu rast najmä tolerantných druhov (kukurica, zemiaky, pšenica) rast stimulovať (Carbonell a kol., 1998; Gulz a kol., 2005; Jacobs a kol., 1970). Stimulácia rastu a metabolizmu nízkymi dávkami a

naopak inhibícia vyššími dávkami (tzv. horméza) je typická najmä pre neesenciálne stopové prvky. Stimulačný účinok arzénu je vysvetľovaný náhradou fosforu P(+V) za As(+V) v pôdach, čím sa zvyšuje dostupnosť fosforu pre rastliny (Jacobs a kol., 1970). Mechanizmus hormetického účinku arzénu na rastliny však doteraz nie je celkom objasnený. Cieľom experimentov bolo overiť hormetický účinok arzénu na rast kukurice siatej (*Zea mays* cv. Chapalu).

2 MATERIÁL A METÓDY

Hormetický účinok arzénu bol testovaný vo fáze nakličovania semien na Petriho miskách a vo fáze rastu v pôdnom substráte. Semená kukurice siatej (*Zea mays* cv. Chapalu) boli sterilizované v 10% roztoku chlórnanu sodného 10 minút a následne prenesené na Petriho misky s dvojitou vrstvou filtračného papiera, ktorý bol navlhčený destilovanou vodou (kontrola) a roztokmi arzénu (1, 2, 3 a 5 mg/l As). Roztok As bol pripravený z certifikovaného referenčného materiálu pre arzén (Sigma aldrich). Po 4 dňoch naklíčovania bola stanovená dĺžka koreňov a čerstvá hmotnosť koreňov.
Ďalší experiment bol koncipovaný ako nádobový. Plastové nádoby boli naplnené záhradníckym substrátom (pH 4,5 – 6,5, max. vlhkosť 70 %), do ktorého bolo zasiatych 20 semien kukurice siatej (*Zea mays* cv. Chapalu). Následne boli do pôdneho substrátu aplikované dávky arzénu v nasledovných dávkach: As – 1, 2, 3 a 5 mg/kg pôdy. Testované kontaminanty boli aplikované vo forme roztoku. Rastliny boli následne pravidelne zalievané množstvom vody zodpovedajúcej maximálnej sorbčnej kapacite pôdy. Kontrolné varianty boli zalievané destilovanou vodou. Experiment bol založený v rastovej komore s kontrolovanými podmienkami (teplota 20°C, vlhkosť vzduchu 60-70 %, svetelný režim 12 h svetlo /12 h tma, intenzita ožiarenia 400 µmol/m^2s. Po 10 dňoch rastu v kontaminovanej pôde boli stanovené rastové parametre. Pokus bol založený v troch opakovaniach.

Stanovenie rastových parametrov

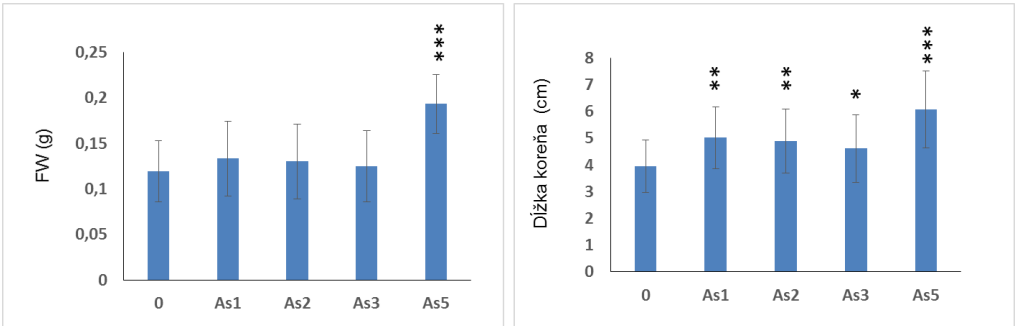
Dľžka primárnych koreňov a výhonkov bola meraná pravítkom. Po stanovení čerstvej hmotnosti koreňov pomocou analytických váh boli korene vysušené v inkubátore 48 hodín pri 60 °C do konštantnej hmotnosti a následne odvážené pomocou analytických váh.

Štatistické spracovanie údajov

Údaje pre sledované parametre boli štatisticky spracované pomocou programu Microsoft Excel 2010. Rozdiely medzi súbormi dát sme stanovili Studentovým t-testom.

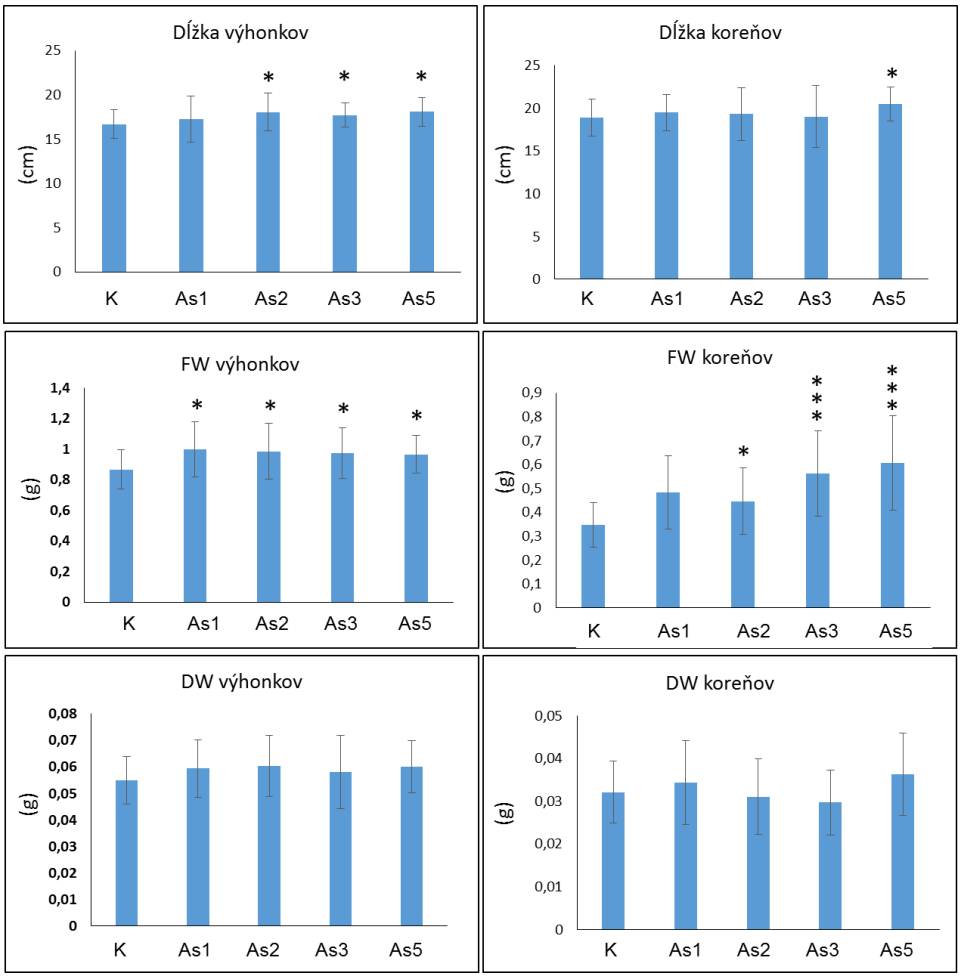
3 VÝSLEDKY A DISKUSIA

Po 4 dňoch nakličovania v roztokoch arzénu došlo k predĺženiu koreňa o 27 - 54 %, zvýšená čerstvá hmotnosť (o 63 %) bola zaznamenaná pri dávke 5 mg/l As (Obr. 1).



Obr. 1: *Vplyv rôznych dávok (1-5 mg/l) arzénu (As) na čerstvú hmotnosť (FW) a dĺžku koreňov kukurice siatej. * ,**, *** štatisticky významné rozdiely pri p< 0.05, p< 0.01 a p< 0.001.*

Testované dávky arzénu (2, 3, 5 mg.kg^{-1} pôdy) stimulovali rast výhonkov o 8 % , 6 % a 8 % a zvýšili čerstvú hmotnosť výhonkov o 15% (As1), 14 % (As2), 11% (As3) a 10 % (As5) (Obr. 2). Vplyv arzénu na hmotnosť sušiny výhonkov (DW) bol zanedbateľný (Obr. 2).
Stimulačný účinok arzénu sa prejavil aj na raste kukurice pestovanej v pôdnom substráte. V prípade dĺžky koreňov sa daný účinok štatisticky významne prejavil vplyvom dávky As5 (predĺženie o 8 %) a v prípade FW došlo k nárastu o 37 % (As1), 29 % (As2), 60 % (As3) a 74 % (As5) **(**Fig. 1**)**. Obsah sušiny koreňov zostal nezmenený (Obr. 2).



Obr. 2: *Vplyv rôznych dávok (1-5 mg/kg pôdy) arzénu (As) na rastové parametre kukurice siatej. Údaje predstavujú aritmetický priemer ± SDEV, n = 24. * ,*** štatisticky významné rozdiely pri p< 0.05 a p< 0.001.*

Stimulačný účinok arzénu (12,5 a 25 mg/kg^{-1} pôdy) na rast kukurice a nutričnú kvalitu zrna zaznamenali aj Ci et al. (2012). Nízke dávky arzénu (0,2 – 0,8 mg/l) pôsobili stimulačne aj na rast cibule (Sushant and Ghosh, 2010). Dávky arzénu do 10 mg/kg pôdy naopak pôsobili inhibične na rast *Brassica juncea* (Chaturvedi 2006), *Lycopersicum esculentum* (Carbonell-Barrachina et al., 1997), *Medicago sativa* a *Hordeum vulgare* (Eisler, 2007).
Existuje viacero vysvetlení mechanizmu hormézy v závislosti od testovanej chemikálie a/ alebo rastlinného druhu. Niektoré mechanizmy by mohli predstavovať fyziologické pokusy o "útek" alebo kompenzáciu chemického stresu. To by mohlo vysvetliť hormetickú odozvu v raste koreňov (Wiedman a Appleby, 1972). Stimulačný účinok arzénu je vysvetľovaný náhradou fosforu P(+V) za As(+V) v pôdach, čím sa zvyšuje dostupnosť fosforu pre rastliny (Jacobs a kol., 1970). Uvedený mechanizmus je zrejme účinný len v prípade pestovania

v pôdnych substrátoch, nakoľko sme stimuláciu rastu zaznamenali aj pri pestovaní rastlín vo vodných roztokoch bez pridania živín. Hlbšie biochemické a molekulárno-biologické štúdie sú potrebné pre objasnenie hormetického účinku arzénu na rast kukurice siatej.

Použitá literatúra

1. CARBONELL, A., AARABI, M., DELAUNE, R., GAMBRELL, R., PATRICK, W.J.R.: *Arsenic in wetland vegetation: Availability, phytotoxicity, uptake and effects on plant growth and nutrition*. The Science of the Total Environment, 217, 1998, 189-199.
2. CI, X.K., LIU, H.L., HAO, Y.B., ZHANG, J.W., LIU, P., DONG, S.T.: *Arsenic distribution, species, and its effect on maize growth treated with arsenate*. Journal of integrative agriculture, 11, 2012, 416-423.
3. DRAGUN, A.K.: *The agricultural production of environment. Some Nordic issues*, Swedish Journal of Agricultural Research, 28, 1998, 49-55.
4. EISLER, R.: Eisler's Encyclopedia of environmentally hazardous priority chemicals, Elsevier Science, 2007, 986 pp.
5. GULZ, P.A., GUPTA, S.K., SCHULIN, R.: *Arsenic accumulation of common plants from contaminated soils*. Plant and Soil, 272, 2005, 337-347.
6. CHATURVEDI, I.: Effects of arsenic concentrations and forms on growth and arsenic uptake and accumulation by Indian mustard (*Brassica juncea* L.) genotypes. *Journal of Central European Agriculture*, 7, 2006, 31-40.
7. JACOBS, L.W., KEENEY, D.R.: *Arsenic -phosphorus interaction in corn*. Soil Science and Plant Analysis,1(2), 1970, 85-93.
8. PÄIVÖKE, A., SIMOLA, L.K.: *Arsenate toxicity to Pisum sativum : mineral nutrients, chlorophyll content, and phytase activity*. Ecotoxicology and Environmental Safety, 49, 2001, 111-121.
9. SUSHANT, S. K., GHOSH, A. K.: *Effect of arsenic on photosynthesis, growth and its accumulation in the tissues of Allium cepa* (Onion). International Journal of Environmental Engineering and Management, 1, 2010, 39-50.
10. WIEDMAN, S.J.- APPLEBY, A.P.: *Plant growth stimulation by sublethal concentrations of herbicides*. Weed Research, 12, 1972, 65-74.

Poďakovanie

Práca bola podporená výskumným zámerom projektu VEGA 1/0061/15.

Kontaktné údaje

RNDr. Beáta Piršelová, PhD.
Univerzita Konštantína Filozofa v Nitre, Fakulta prírodných vied
Katedra botaniky a genetiky
Nábrežie mládeže 91, 949 74 Nitra
Tel: 037 6408 583
email: bpirselova@ukf.sk

BEZPEČNOSŤ KONZUMÁCIE FAZULE ZÁHRADNEJ DOPESTOVANEJ VO VYBRANÝCH LOKALITÁCH SLOVENSKA

SAFETY CONSUMPTION OF BEAN CULTIVATED IN CHOSEN LOCALITIES OF THE SLOVAKIA

Mária Timoracká, Nikola Mikušková, Ľuboš Harangozo

Abstrakt
Cieľom práce (Zn, Cu, Co, Cr, Ni, Cd, Pb) bolo zistiť obsah ťažkých kovov v odrodách fazule záhradnej pestovanej vo vybraných regiónoch Slovenska a posúdiť riziko jej konzumácie. Pôdy z lokalít zberu boli stredne humózne až silne humózne (1,96-3,69%) so slabokyslou až alkalickou pôdnou reakciou. Vo všetkých vzorkách pôd bol zvýšený celkový obsah Cd (1,67-2,50 $mg.kg^{-1}$) a obsah mobilných foriem Pb (0,17-0,42 $mg.kg^{-1}$) a kadmia (0,102-0,192 $mg.kg^{-1}$). Vo všetkých vzorkách fazule bol obsah rizikového prvku kadmia pod hranicou detekcie. Limitné hodnoty obsahu Ni a Pb boli prekročené len v odrode Borlotto di vigevano (lokalita Hažín, východné Slovensko). Obsahy ostatných stanovených prvkov boli pod hranicou danou platným zákonom.
Kľúčové slová: *fazuľa, ťažké kovy, bezpečná konzumácia*

Abstract
The content of heavy metals (Zn, Cu, Co, Cr, Ni, Cd, Pb) in bean varieties cultivated in chosen regions of Slovakia was determined and risk of its consumption was evaluated. Soils from localities of collection were slightly strongly humic up very strongly humic (1.96-3.69%) with an slightly acidic to alkalic soil reaction. In all soil samples were higher content of Cd (0.102-0.192 $mg.kg^{-1}$) and the content of mobile forms of Pb (0.17-0.42 $mg.kg^{-1}$) and cadmium (0.17-0.42 $mg.kg^{-1}$). In all samples of bean, the presence risk of element Cd was not detected. The limit values were exceeded in the content of Ni and Pb only in variety Borlotto di vigevano (locality Hažín, eastern part of Slovakia). The contents of other determinated elements were bellow limit by valid Law.
Key words: *bean, heavy metals, safety consumption*

1 ÚVOD

Strukoviny z domácej produkcie majú signifikantný význam vo výžive ľudí pre svoj zdraviu prospešný potenciál z dôvodu prítomnosti nutričných látok. Napriek pozitívnym vlastnostiam je ale nevyhnutné monitorovanie prítomnosti rizikových ťažkých kovov, na obsah ktorých v značnej miere vplývajú pôdno-ekologické podmienky, z dôvodu hygienickej bezpečnosti týchto plodov využívaných v ľudskej výžive (Križová et al., 2009). Ťažké kovy sú nedegradovateľné kontaminanty, ktoré sa vyznačujú rozdielnym zdrojom pôvodu, vlastnosťami, ako aj pôsobením na živé organizmy (Tóth et al., 2005) a ak sa nachádzajú v potravinových surovinách v nadbytku, stávajú sa toxickými pre ľudský organizmus. Na Slovensku k najčastejším problémom znečistenia životného prostredia zaraďujeme kontamináciu vody a pôdy, predovšetkým ťažkými kovmi spôsobenú prirodzeným zrudnením, ale aj antropogénnou činnosťou, a ktorá je vyššia ako celosvetový priemer. Najznečistenejšie sú preto oblasti okolo priemyselných centier, hutníckych závodov a banských miest. Taktiež k nim zaraďujeme ďalšie nevhodné zásahy do životného prostredia ako napríklad navážanie vysokého množstva cudzorodých látok do prostredia a potravinového reťazca (Fargašová, 2017). Územie Slovenska je rozdelené do 9 ohrozených oblastí a v rámci

nich do 5 stupňov na základe úrovne životného prostredia: I. stupeň- prostredie vysokej úrovne, II. stupeň- prostredie vyhovujúce, III. stupeň- prostredie mierne narušené, IV. stupeň- prostredie narušené, V. stupeň- prostredie silne narušené (Fargašová, 2017).
Je dôležité sa danou témou zaoberať, pretože kontaminácia pôd a následne aj potravinového reťazca ťažkými kovmi ovplyvňuje zdravotný stav obyvateľstva. Preto je nutné, aby bol kladený dôraz na bezpečnosť a monitoring potravín a bol hlavnou prioritou výrobcov potravín aj z hľadiska obsahu ťažkých kovov.
Cieľom práce bolo posúdiť vstup ťažkých kovov v systéme pôda-rastlina z 3 lokalít Slovenska, ako aj stanoviť obsah ťažkých kovov v konzumnej časti strukovín a vyhodnotiť bezpečnosť konzumácie fazule záhradnej pestovanej v daných lokalitách.

2 MATERIÁL A METÓDY

Semená strukovín – fazule záhradnej - boli zberané v štádiu plnej zrelosti a pochádzali z 3 vybraných lokalít Slovenska, ktoré sú charakterizované v Tab. 1.

Tab. 1 Lokalita zberu a odroda pestovanej strukoviny

lokalita	poloha lokality	oblasť znečistenia	odroda fazule
Piešťany	juhozápad Slovenska 162 m n.m. 48°35′03″S 17°50′01″V	Trnavsko-galantská oblasť I. stupeň	*Fabia* *Albena* *Gracia* *Betka*
Sliač	stredné Slovensko 298 m n. m. 48°36′43″N 19°08′37″E	Strednopohronská oblasť IV. stupeň	*Strakatá* *Dita* *Corona*
Hažín	východ Slovenska 120 m n.m. 48°47′0″N 22°02′12″E	Strednozemplínska oblasť III. stupeň	*Borlotto di vigevano* *Eureka*

Z každej oblasti pestovania strukovín bola odobraná vzorka pôdy. Prevládajúcim pôdnym druhom vo vybraných lokalitách bola piesočnato-hlinitá pôda, stredne ťažká. Pôda z každej lokality bola hodnotená na základe pôdnej reakcie (pH/KCl), obsahu živín - P, Mg, K a Ca (mobilná forma) podľa Mehlich II, celkového obsahu ťažkých kovov stanoveného vo výluhu lúčavky kráľovskej, obsahu ťažkých kovov - mobilné formy vo výluhu dusičnanu amónneho ($c = 1 mol.dm^{-3}$) a obsahu humusu (Tjurinova metóda). Výsledky analýz pôd boli vyhodnotené podľa Zákona č. 220/2004 o ochrane a využívaní poľnohospodárskej pôdy a legislatívnej normy Európskej únie č. 1881/2006 (EC 2006).
Vzorky fazule záhradnej (cca 100 g) boli homogenizované a analyzované v 4 opakovaniach. Semená strukoviny boli analyzované mokrou cestou na obsah vybraných ťažkých kovov. Výsledky analýz strukoviny boli vyhodnotené podľa Potravinového kódexu Slovenskej republiky a Nariadenia komisie EÚ č. 420/2011.
Analytickou koncovkou bola plameňová atomová absorpčná spektrometria (prístroj AA240FS Varian, CA).

3 VÝSLEDKY A DISKUSIA

3.1 Hodnotenie pôdnych vzoriek

Jednotlivé uvedené sledované parametre pôd (Tab. 2) boli hodnotené na základe kritérií vydaných ÚKSUP Bratislava (16).

Tab. 2 Obsah živín (mg.kg^{-1}), humusu (%) a pôdna reakcia v pôdach sledovaných lokalít

lokalita	K	Ca	Mg	P	N	humus	pH/KCl
Piešťany	231	4794	352	27,5	4025	3,03	7,44
Sliač	357	2944	354	309	2325	3,69	6,76
Hažín	351	1257	184	235	3665	1,96	5,89

Zo západného Slovenska, z pestovateľskej plochy Génovej banky VÚRV v Piešťanoch, bola odobratá pôda z odberného miesta, ktoré sa vyznačovalo alkalickou pôdnou reakciou so stredným obsahom humusu, veľmi vysokým obsahom horčíka, malým obsahom fosforu, ale vysokým obsahom draslíka. Najvyššie zastúpenie spomedzi makroelementov (Tab. 2) mal vápnik s hodnotou 4794,0 mg.kg^{-1}, čo korešponduje s hodnotou výmennej pôdnej reakcie.
Zo stredného Slovenska, z pestovateľskej plochy PD lokality Sliač, bola odobratá vzorka pôdy, ktorá sa vyznačovala neutrálnou pôdnou reakciou a so silným obsahom humusu, veľmi vysokým obsahom horčíka, vysokým obsahom fosforu a draslíka.
Z východného Slovenska, z pestovateľskej plochy PD lokality Hažín (Zemplínska šírava) boli odobraté vzorky pôdy so slabo kyslou pôdnou reakciou a s miernym obsahom humusu, veľmi vysokým obsahom fosforu , vysokým obsahom draslíka a dobrým obsahom horčíka.
Obsah vápnika v jednotlivých lokalitách sa pohyboval od 1257 mg.kg^{-1} do 4794 mg.kg^{-1}.

Pre zhodnotenie stavu hygieny pôd sa merali obsahy prvkov, ktoré sa porovnali s limitnými a kritickými hodnotami ťažkých kovov v pôde podľa Zákona č. 220/2004 o ochrane a využívaní poľnohospodárskej pôdy a tiež prahovou hodnotou legislatívnej normy Európskej únie č. 1881/2006 (EC 2006). Limitné a prahové hodnoty sú určené zo stanovenia obsahov kovov v pôde v extrakte lúčavky kráľovskej a kritické hodnoty v extrakte dusičnanu amónneho (c=1mol.dm^{-3}).

Tab. 3 Celkový obsah ťažkých kovov v pôdach (mg.kg^{-1}) vo výluhu lúčavky kráľovskej

Pôda	Cd	Co	Cr	Cu	Ni	Pb	Zn
Piešťany	**2,14**	12,4	29,0	24,4	48,8	26,6	81,8
Sliač	**2,50**	11,3	18,5	42,0	23,5	65,6	**162,0**
Hažín	**1,67**	12,4	23,9	14,2	23,1	35,4	49,0
limitná hodnota*	0,7	15	70	60	50	70	150
prahová hodnota **	1,5	x	100	100	70	100	200

*Zákon č. 220/2004 Z.z., **EC (2006)

Vo všetkých skúmaných oblastiach hodnoty celkových obsahov ťažkých kovov uvádzaných v tabuľke 3 boli pod limitnou hodnotou s výnimkou obsahu kadmia a zinku. Zvýšený obsah kadmia v pôde predstavuje celoplošný problém SR v dôsledku v minulosti častého a intenzívneho hnojenia kompostmi, priemyselnými hnojivami a hlavne superfosfátom (Bajčan, 2007). Zvýšená hodnota zinku bola zistená iba v oblasti Sliač pri stanovení celkového obsahu zinku. Svojou hodnotou (162,0 mg.kg^{-1}) obsah Zn prekračoval limitnú hodnotu o 8% podľa zákona 220/2004 platného v SR, ale nedosahoval prahovú hodnotu určenú európskou legislatívou. Celkový obsah zinku v pôde ostatných lokalít bol v súlade

s maximálne povolenou hodnotou. Imtiaz et al. (2003) zistili, že nadmerný obsah zinku v pôde nepriaznivo ovplyvňuje príjem železa, mangánu a medi, čo môže spôsobiť nedostatok týchto mikroprvkov v rastlinách.
Zákon č. 220/2004 Z. z. neuvádza limitné hodnoty v pôde pre mangán a železo. Koncentrácie mangánu v pôde sa pohybovali v rozmedzí od 629 $mg.kg^{-1}$ (lokalita Piešťany) do 810 $mg.kg^{-1}$ (lokalita Sliač). Železo bolo v pôde najviac zastúpené v lokalite Sliač 24309 $mg.kg^{-1}$ a najmenej v lokalite Piešťany (15190 $mg.kg^{-1}$).
Kľúčovým aspektom v pôdach je obsah prístupných (mobilných) foriem ťažkých kovov. V jednotlivých pôdnych vzorkách bol stanovený obsah mobilizovateľných foriem ťažkých kovov vo výluhu dusičnanu amónneho NH_4NO_3 (Tab. 4). Vo všetkých vzorkách pôd bol zistený zvýšený obsah olova. Jeho maximálna povolená hodnota je 0,1 $mg.kg^{-1}$ a jeho obsah v odberných pôdach bol 2 až 4 násobne vyšší. V lokalite Hažín bolo zistené mierne prekročenie obsahu kadmia (o 2%) nad limitnú hodnotu (0,1 $mg.kg^{-1}$), ale v lokalite Sliač množstvo kadmia prekročilo limit o 86 %. V lokality Piešťany bol obsah kadmia pod hranicou limitu. Môžeme konštatovať, že prvky Pb a Cd môžu predstavovať riziko vstupu do sledovaných strukovín. Shiwen et al. (1990) a Ikeda et al. (1999) uvádzajú, že aj nízke koncentrácie kadmia v pôde sa považujú za environmentálny problém a môže spôsobiť vážne zdravotné problémy.

Tab. 4 Obsah mobilných foriem ťažkých kovov v pôdach ($mg.kg^{-1}$) vo výluhu dusičnanu amónneho ($c = 1\ mol.dm^{-3}$)

Pôda	Cd	Co	Cr	Cu	Ni	Pb	Zn
Piešťany	0,067	0,19	0,02	0,16	0,20	**0,17**	0,02
Sliač	**0,192**	0,21	0,07	0,13	0,29	**0,42**	0,13
Hažín	**0,102**	0,11	0,01	0,09	0,16	**0,25**	0,07
kritická hodnota*	0,1	x	x	1,0	1,5	0,1	2,0

*Zákon č. 220/2004 Z.z.

Zákon č. 220/2004 neuvádza kritické hodnoty pre mangán a železo. Namerané hodnoty mangánu sa pohybovali od 0,16 $mg.kg^{-1}$ (lokalita Sliač) do 0,51 $mg.kg^{-1}$ (lokalita Hažín) a železa v rozmedzí od 0,20 $mg.kg^{-1}$ (lokalita Piešťany) do 0,32 $mg.kg^{-1}$ (lokalita Sliač).

3.2 Hodnotenie obsahu minerálnych látok a ťažkých kovov v semenách fazule záhradnej
Vzorky fazule sa vyznačovali vysokým obsahom fosforu, vápnika a horčíka. Najviac zastúpený bol draslík s hodnotami 10156 $mg.kg^{-1}$ (Fabia) - 15412 $mg.kg^{-1}$ (Eureka). V prípade odrôd fazúľ z lokality Piešťany sme namerali najnižšie hodnoty vápnika v porovnaní s ostatnými strukovinami z iných lokalít, tzn. v poradí K>P>Mg>Ca. Všetky sledované strukoviny majú obsah draslíka väčší ako obsah fosforu. Kobza a Gáborík (2009) zistili, že zásoba draslíka v poľnohospodárskych pôdach je oproti fosforu tak isto lepšia, čo je spôsobené mineralogickým zložením pôd relatívne bohatých na draslík. Z nadobudnutých výsledkov môžeme konštatovať, že vo všetkých testovaných vzorkách boli pomery sodíka a draslíka podstatne nižšie ako hodnota 1.5, čo je zaujímavé z hľadiska výživy, pretože vysoký príjem chloridu sodného v strave môže spôsobovať hypertenziu (Ruperéz, 2002).

Tab. 5 Obsah minerálnych látok v jednotlivých odrodách fazule záhradnej ($mg.kg^{-1}$)

lokalita	Odrody fazule	K	Ca	Mg	P	Na
Piešťany	Fabia	10156	1664	1767	3451	nd.
	Gracia	12827	1672	1674	2886	nd.
	Albena	13114	1013	1787	2713	nd.

	Betka	12573	1177	1796	2233	nd.
Sliač	Strakatá	14356	1714	1184	4285	25,0
	Dita	12945	2049	999	4348	17,0
	Corona	15161	1336	1233	4676	8,7
Hažín	Eureka	15412	2090	1427	4248	9,8
	Borlotto di vigevano	13419	987	1209	5476	7,8

nd. – nedetegované

V závislosti od stupňa znečistenia pôdy rizikovými prvkami sa hodnotil obsah ťažkých kovov v konzumných častiach strukoviny – fazule záhradnej. Obsahy ťažkých kovov v strukovinách (Tab. 6) boli hodnotené podľa platného Potravinového kódexu SR a Nariadenia komisie EÚ č.420/2011. Napriek vysokému celkovému obsahu kadmia i jeho obsahu mobilných foriem v pôde, vo všetkých vzorkách fazule záhradnej bol obsah kadmia pod hranicou detekcie. Obsah ťažkých kovov prekračoval maximálne prístupné hodnoty iba v prípade obsahu niklu a olova v odrode Borlotto di vigevano pestovanej z lokality Hažín. Zo všetkých sledovaných prvkov bolo najviac vo fazuli zastúpené železo (42,0 - 68,0 $mg.kg^{-1}$), zinok (9,5 - 33,80 $mg.kg^{-1}$) a mangán (11 - 18 $mg.kg^{-1}$). Potravinový kódex SR a Nariadenie komisie EÚ č.420/2011 neuvádzajú limitné hodnoty pre obsahy Fe a Mn (z toho dôvodu obsahy nie sú neuvádzané v Tab. 6).

Tab. 6 Obsah ťažkých kovov v jednotlivých odrodách fazule záhradnej ($mg.kg^{-1}$)

lokalita	vzorka	Zn	Cu	Co	Ni	Cr	Pb	Cd
Piešťany	Fabia	26,40	6,30	0,10	0,40	0,60	0,10	nd.
	Gracia	24,60	6,20	0,10	1,20	0,40	0,10	nd.
	Albena	24,60	5,50	0,20	0,80	0,50	**0,20**	nd.
	Betka	33,80	8,90	nd.	1,60	0,50	**0,20**	nd.
Sliač	Strakatá	9,50	3,70	0,80	1,90	1,10	nd.	nd.
	Dita	13,50	6,40	0,70	1,70	1,10	nd.	nd.
	Corona	10,30	3,80	0,70	1,60	1,00	nd.	nd.
Hažín	Eureka	13,50	4,80	0,80	1,90	1,10	nd.	nd.
	Borlotto di vigevano	17,70	6,80	0,80	**3,80**	0,50	**0,70**	nd.
	max. hodnota*	50	15	x	3,0	4,0	0,2	0,1
	limit. hodnota**	x	x	x	x	x	0,2	0,1

*Potravinový kódex SR, **Nariadenie komisie EÚ č. 420/2011, nd. – nedetegované

V skúmaných odrodách fazule záhradnej z lokality Piešťany môžeme konštatovať, že obsahy ťažkých kovov, s výnimkou olova, ktorého obsah dosiahol limitnú hranicu, boli pod max. hranicou danou platným zákonom. Obsah rizikového prvku – kadmia - bol pod hranicou detekcie. V Piešťanoch bola fazuľa záhradná pestovaná na alkalickej pôde, z ktorej sa transfer kadmia nepreukázal v semene fazúľ, pretože ako uvádzajú Kabata-Pendias a Pendias (2001), kadmium je najpohyblivejšie pri pH 4,4 - 4,5. Urminská et al. (2013) uvádzajú, že kadmium je v alkalickom prostredí menej pohyblivé a pri posune pH do alkalickej oblasti má tendenciu sa vyzrážať na povrchu ílových minerálov.

Z oblasti Sliač zistený obsah ťažkých kovov v jednotlivých odrodách fazule záhradnej neprekročil limitné hodnoty ani v jednom prípade. Hodnoty rizikových prvkov - olova

a kadmia - vo všetkých odrodách fazuli záhradnej boli pod medzou detekcie. Z lokality Sliač sme analyzovali neutrálnu pôdu, v ktorej mobilita Pb aj Cd bola nízka. Podobne výsledky dosiahol vo svojej publikácii aj Styk (2001).
Stanovením obsahu ťažkých kovov v 2 odrodách fazule záhradnej z oblasti Hažín môžeme konštatovať, že v odrode Borlotto di vigevano obsah niklu prekročil o 26,67 % a obsah olova o 250 % limitnú hodnotu stanovenú Potravinovým kódexom Slovenskej republiky. Napriek tomu, že hodnoty niklu v pôde, ktoré boli stanovené v extrakte lúčavky kráľovskej a dusičnanu amónneho nepoukazovali na riziko príjmu prvku rastlinou. Hodnota transfer faktoru pre Ni vo fazuli záhradnej bola 0,16 a hodnota TF pre Pb bola 0,019. Ak hodnota transfer faktoru je menšia ako 1, tak sledovaný druh rastliny neprijíma, resp. vylučuje kontaminant. Ak je hodnota transfer faktoru väčšia ako 1, tak sledovaný druh prijíma kontaminant vo zvýšenej miere. Slabo kyslá pôdna reakcia z danej lokality by mohla podmieniť mobilitu prvkov v systéme pôda-rastlina, avšak hodnoty transfer faktoru sú nízke, a tak rastlina neprijímala nikel z pôdy, ale pravdepodobne atmosférickou depozíciou. (spaľovanie olejov vo vrakovisku, ktoré sa nachádza v blízkosti obce Hažín).

4 ZÁVER

V lokalite Piešťany bola pôda s alkalickou pôdnou reakciou a so stredným obsahom humusu. V pôdnom extrakte sme namerali prekročenie limitnej a prahovej hodnoty v prípade celkového obsahu kadmia a prekročenie kritickej hodnoty mobilných foriem olova. V skúmaných odrodách (Fabia, Gracia, Albena, Betka) fazule záhradnej môžeme konštatovať, že obsahy ťažkých kovov neprekročili limitné hodnoty s výnimkou olova, ktorého obsah dosiahol limitnú hranicu (Albena, Betka). Obsah rizikového prvku kadmia v spomínaných odrodách bol pod hranicou detekcie.
V lokalite Sliač bola odobratá pôda s neutrálnou pôdnou reakciou a so silným obsahom humusu. V pôdnom sme namerali prekročenie limitnej aj prahovej hodnoty celkových obsahov zinku a kadmia a prekročenie kritickej hodnoty mobilných foriem kadmia a olova. Obsah Cu, Zn, Co, Ni, Cr vo fazuli záhradnej v odrodách Strakatá, Dita, Corona neprekročili limitné hodnoty stanovené PK SR. Hodnoty rizikových prvkov olova a kadmia vo všetkých odrodách fazule záhradnej boli pod medzou detekcie.
V lokalite Hažín bola pôda s miernym obsahom humusu a so slabo kyslou pôdnou reakciou. V pôdnom extrakte sme zistili prekročenie limitnej a prahovej hodnoty celkového obsahu kadmia a prekročenie hodnoty mobilných foriem olova ako aj kadmia. Vo vzorkách fazule záhradnej sme namerali obsah Cu, Zn, Co, pod limitnou hranicou. V odrode Borlotto di vigevano sme zistili prekročenie limitnej hodnoty obsahu niklu (3,8 $mg.kg^{-1}$) a olova (0,70 $mg.kg^{-1}$). Obsah kadmia v tejto odrode nebol detegovaný. V odrode fazule Eureka obsahy olova a kadmia boli pod hranicou detekcie.
Môžeme konštatovať, že napriek tomu, že stanovené zvýšené obsahy mobilných foriem Pb a Cd v pôde predstavovali riziko vstupu do sledovaných strukovín, rizikové prvky v sledovaných strukovinách z rôznych oblastí Slovenska neboli detegované. Obsahy Cu, Zn, Cr, Ni boli (až na 1 výnimku) pod limitnou hodnotou danou PK SR a Nariadenia komisie EÚ č. 420/2011.

Acknowledgement
Táto práca vznikla v rámci projektu: VEGA 1/0087/17.

Použitá literatúra

1. BAJČAN, D. *Hygienický stav poľnohospodársky obrábaných pôd povodia rieky Štiavnica:* dizertačná práca. 2007. Nitra: SPU.

2. FARGAŠOVÁ, A. *Znečistenie kovmi na Slovensku* [online], [cit. 2017-03-15]. Dostupné na: http://www.enviro-edu.sk/
3. IKEDA, M. - ZHANG, Z. W. - HIGASHIKAWA, K. et al. *Background exposure of general women populations in Japan to cadmium in environment and possible health effects*. In Toxicology Letters. 1999, 108, pp. 161-166.
4. IMTIAZ, M., ALLOWAY, B.J.,SHAH, K.H. et al. *Zinc nutrition of wheat: II: Interaction of Zinc with other Trace Elements*. In Asian Journal of Plant Sciences. 2003, 2 (2), pp. 156-160.
5. KABATA-PENDIAS, A. – PENDIAS, H. 2001. Trace Elements in Soils and Plants. 3 ed., CRC Press, USA. 432 s.
6. KOBZA, J., GÁBORIK, Š. *Súčasný obsah a vývoj makroelementov (P, K, Mg) v poľnohospodárskych pôdach Slovenska*. Agrochémia. 2009, 13 (3), pp. 3-8.
7. KRÍŽOVÁ, L., VOLLMANNOVÁ, A., MARGITANOVÁ, E. et al. *Rizikové kovy v drobnom lesnom ovocí*. Potravinárstvo: vedecký časopis pre potravinárstvo. 2009, 3 (3), pp. 43-47.
8. Nariadenie komisie (ES) č. 1881/2006 z 19. decembra 2006, ktorým sa ustanovujú maximálne hodnoty obsahu niektorých kontaminantov v potravinách.
9. Nariadenie komisie (EÚ) č. 420/2011 z 29. apríla 2011, ktorým sa mení a dopĺňa nariadenie (ES) č. 1881/2006, ktorým sa ustanovujú maximálne hodnoty obsahu niektorých kontaminantov v potravinách.
10. Potravinový kódex. Výnos Ministerstva pôdohospodárstva Slovenskej republiky a Ministerstva zdravotníctva Slovenskej republiky z 15. marca 2004 č. 608/3/2004-100, ktorým sa vydáva hlava Potravinového kódexu Slovenskej republiky upravujúca kontaminanty v potravinách.
11. RUPÉREZ, P. *Mineral content of edible marine sea weeds.* In Food Chemistry. 2002, 79, pp. 23-26.
12. SHIWEN, C. - LIN Y. - ZHINENG, H. et al. *Cadmium exposure and health effects among residents in an irrigation area with ore dressing wastewater*. In The Science of the Total Environment. 1990, 90, pp. 67-73.
13. STYK, J. 2001. Problém ťažkých kovov (kadmiu, olovo, meď, zinok) v pôdach Štiavnických vrchov a ich príjem trávnymi porastami. Bratislava: Výskumný ústav pôdoznalectva a ochrany pôdy. 136s. ISBN 80-85361-90-6.
14. TÓTH, T., POSPÍŠIL, R., PARILÁKOVÁ, K. et al. *Distribúcia ťažkých kovov v pôdach aplikáciou substrátu po výrobe biokalu*. ChemZi. 2005, 1 (1), pp 108-109.
15. URMINSKÁ, J. – URMINSKÁ, D. – ONDRIŠÍK, P. 2013. *Frakcionácia kadmia a olova z reálneho sedimentačného prostredia sedemkrokovou selektívnou sekvenčnou extrakciou*. In Chemické listy. 2013, 102, pp. 963-968.
16. Vyhláška Ministerstva pôdohospodárstva Slovenskej republiky z. 6. júla 2005 č. 338/2005 Z. z., ktorou sa ustanovujú podrobnosti o postupe pre odber pôdnych vzoriek, spôsobe a rozsahu vykonávania agrochemického skúšania pôd, zisťovania pôdnych vlastností lesných pozemkov a o vedení evidencie hnojenia pôdy a stavu výživy rastlín na poľnohospodárskej pôde a na lesných pozemkoch.
17. Zákon č. 220/ 2004 z 10. marca 2004 o ochrane a využívaní poľnohospodárskej pôdy a o zmene zákona č. 245/2003 Z. z. o integrovanej prevencii a kontrole znečisťovania životného prostredia a o zmene a doplnení niektorých zákonov.

Kontakt

Ing. Mária Timoracká, PhD.
Slovenská poľnohospodárska univerzita v Nitre, Fakulta biotechnológie a potravinárstva
Tr. A. Hlinku 2, 94901 Nitra, Slovakia
maria.timoracka@uniag.sk, +421 37 641 4862

NEURAMINIDASE INHIBITORS OF INFLUENZA TYPE A - A MINI REVIEW

Sabina Lipničanová, Daniela Chmelová, Miroslav Ondrejovič

Abstract

Influenza virus, generally known as flu, caused severe respiratory infections, which are responsible for up to half a million deaths worldwide each year. Although the seasonal flu is not life threatening nevertheless, major health problems represent new influenza strains, which have already caused several pandemics with devastating effects. Influenza virus neuraminidase is a surface protein that catalyses the release of newly formed virions from infected host cell. As an enzyme with defined substrate is neuraminidase suitable target for development of inhibitors. Oseltamivir and zanamivir are two currently approved neuraminidase inhibitors however, genetic instability of influenza virus and creation of strains resistant to developed antiviral agents is the main problem. The purpose of this article is to review the structure of neuraminidase inhibitors in connection to their mechanism of action and to describe a mechanism of the resistance associated to mutation in the neuraminidase proteins.

Key words: *influenza, inhibitors, neuraminidase*

1 INTRODUCTION

Influenza virus common illness, generally known as the „flu “, may account for average of 3-5 millions of severe case and between 250 000 and 500 000 deaths in the world (WHO, 2014). Influenza A virus belongs to the *Orthomyxoviridae* family. There are three phylogenetically and antigenically distinct viral types - A, B and C, however only types A and B are clinically relevant for humans. The most remarkable characteristic of influenza viruses is their rapid evolution, especially in the case of influenza A virus, which leads to its great variability compared with influenza B virus which have been stable for more than 20 years (Nerome et al., 1998). Therefore, influenza A virus and its neuraminidase is the main subject of this review.

Core viral particle forms ribonucleoprotein complex which is made from negative-sense, single stranded, segmented RNA genome. Each segment of RNA genome codes viral protein. Centre of viral particle is enveloped by lipid layer and possess three membrane proteins - the matrix protein (M2), hemagglutinin (HA) and neuraminidase (NA) (Palese et al., 1976). Influenza viruses A harboring numerous antigenically serotypes of HA and NA (Fouchier at al., 2005).

Two classes of antiviral drugs are currently available for the prevention and mitigation of severity of the disease caused by influenza virus: the adamantanes and the neuraminidase inhibitors (NAIs). Both groups of inhibitors operate on the basis of inhibition proteins and signaling pathways that are essential for the life cycle of the influenza virus, including surface proteins (matrix protein M2 and NA). The adamantanes are M2 blockers and were developed in the 1960s, however due to high frequency of M2 blocker resistance, the Centers for Disease Control and Prevention (CDC) has advised against the use of this class of drugs (CDC, 2006; Ison, 2006) and since 2010, NAIs are the only class of anti-influenza agents recommended by the WHO.

The aim of this review is to describe the structure of neuraminidase in connection with the action of its inhibitors and mechanisms of resistance.

2 NEURAMINIDASE INHIBITORS

The influenza virus surface glycoprotein neuraminidase can be classified into nine subtypes (N1, N2, N3, N4, N5, N6, N7, N8 and N9) which are divided into two phylogenetic groups. The first phylogenetic group includes of N1, N4, N5 and N8 subtypes. The second group consists from N2, N3, N6, N7 and N9 subtypes (Russell et al., 2006). NA plays main role in the viral cycle and allows the release of new viral particles from the host cell by cutting off the terminal N-acetyl neuraminic acid (Neu5Ac; DANA; Figure 1-A), which is linked to the host cell membrane (Von Itzstein et al., 1993). Therefore, enzymatic activity of NA also promotes influenza virus spread within the respiratory tract.

NA is a mushroom-shaped homotetramer coded as sixth segment in the RNA pattern from influenza genome which is composed of several domains: a cytoplasmic tail, transmembrane domain, a stalk region and a globular head region (Varghese et al., 1983). The amino acid sequence of NA contains four N-glycosylation sites mediated by asparagine. The first structure of NA was solved in 1987 from H2N2 and H3N2 influenza strains and shows that NA monomer is made up from six identical antiparallel β –sheets which are organized in the form of a propeller structure. Loops are the most variable parts of the NA structure and may vary in length (Varghese et al., 1983).

The active site lies in a cavity on the surface of the head region where is also situated calcium binding domain which stabilizes the NA structure at low pH. Residues (Arg118, Asp151, Arg152, Arg224, Glu276, Arg293, Arg368 and Tyr406) forming active site are highly conserved among all A type influenza virus (Colman et al., 1993) and some of them directly contact neuraminic acid whereas others are a structural framework for the functional residues. Arg118, Arg293 and Arg368 residues play an essential role in the ability of the NA to bind the substrate or the inhibitor (Varghese et al., 1998; Gema et al., 2015).

2.1 Mechanism of action of neuraminidase inhibitors

The design of NAIs is the classical example of rational structure based drug design. Two NAIs are currently licensed worldwide: oseltamivir and zanamivir which are known under the trademark Tamiflu (Hoffmann- La Roche) and Relenza (GlaxoSmithKline), respectively and also another two compounds are available however approved only in a few countries: peramivir and laninamivir, known as Rapivab (BioCryst) and Inavir (Biota), respectively (Figure 1-B) (Birnkrant and Cox, 2009; Kubo et al., 2010). All of these current NAIs were designed as analogue of DANA based on the structure of oxocarbenium ion transition- state intermediate- Neu5Ac2en (Figure 1-B) (Von Itzstein, 1993; Kim et al., 1997; Yamashita et.al, 2009).

Zanamivir is a 4-deoxy-4-guanidine analogue of DANA (Von Itzstein et al., 1993). Discovery of zanamivir was essential in further development of novel NAIs and after progress done in structure- activity relationship studies with DANA derivatives was development novel NAIs based on templates such as non- carbohydrate cyclohexenes and labelled as oseltamivir (Kim et al., 1997). Oseltamivir is a pro-drug developed through modification of DANA by addition of bulky hydrophobic pentyl ester side chain instead of glycerol side chain and requires ester hydrolysis to be converted to the active form oseltamivir carboxylate (Kim et al, 1997; McKimm- Breschkin, 2013).

NAIs act as a competitive inhibitors and bind to the influenza viral NA active site leading to the block of the enzyme activity. The carboxylate group attached at C2 of zanamivir and oseltamivir interact with amino residues Arg118, Arg292 and Arg371. The guanidino group present on zanamivir interacts with Glu227 and Glu119 and same interaction is with the amino group present on the oseltamivir. The amino side chain which is common for zanamivir and oseltamivir seems to interact with amino acid Arg152Lys and on top of that

glycerol side chain present on zanamivir ring interact with Arg224 and Glu276 (McKimm-Breschkin, 2013; Yen et al., 2006).

Studies by Burmeister et al. (1993) and Ghate et al. (1998) suggested that Tyr406 has also an important role in the NA mechanism. Vavricka et al. (2013) first confirmed the catalytic role of the conserved active site of Tyr406. Substitution of Tyr406 with aspartic acid resulted in a switch of the influenza NA catalytic mechanism to an inverting mechanism what indicated that function of Tyr406 is as a catalytic nucleophile. Because of the importance of Tyr406 in the catalytic mechanism and fact that Tyr406 is almost 100 % conserved across all influenza virus NA it is targeting with covalent inhibitors is a next-generation strategy for development of NAIs.

Even though novel NAIs were discovered in early 2000s, there were no approved compounds for clinical use until 2010, when laninamivir and peramivir were licensed for use, however, only in part of world with resistant influenza strains (Leang et al., 2014). Laninamivir is quite similar to zanamivir with only difference - added methyl group in side chain (Koyama et al., 2009). Due to significant progress done during development of zanamivir when oseltamivir was discovered, has also been made with cyclopentane derivatives, which has led to development of novel NAI - peramivir (Babu et al., 2003). Peramivir is structurally distinct from other NAIs. C4- guanidine substitution and hydrophobic side chain allow tight interaction between peramivir and the active site of NA (Figure 1-C). The eight strong hydrogen bonds with conserved arginine triad is form by negatively charged carboxylate group, compare to oseltamivir and zanamivir are form only six. The methyl group of peramivir occupies pocket formed of residues of Trp178, Ile222 and Arg152 whereas guanidine group fills pocket formed by Glu119, Asp151 and Glu227 where replacing water molecule (Babu et al., 2003).

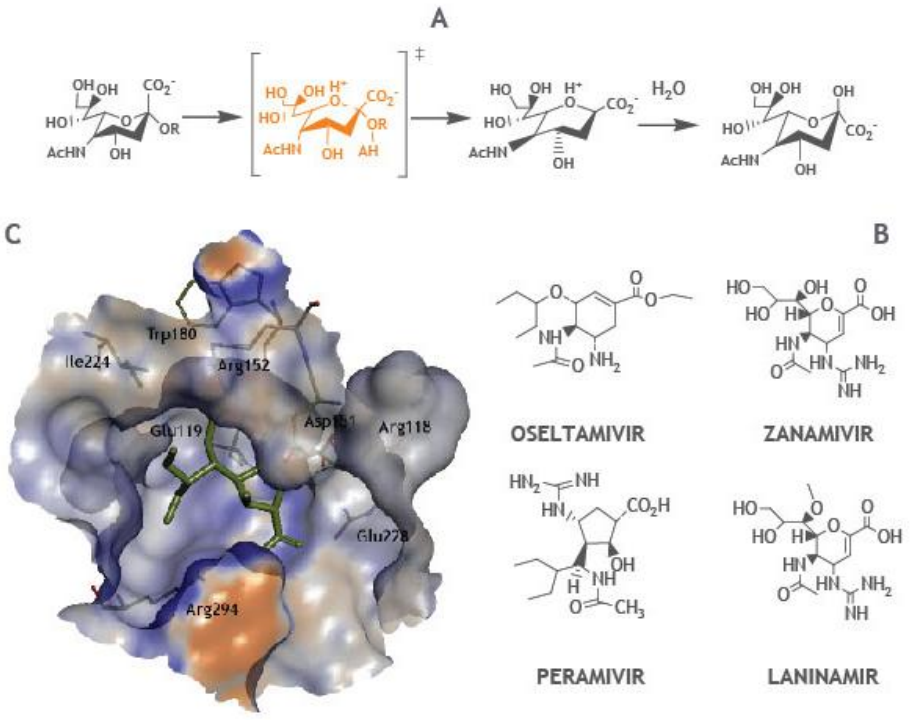


Figure 1. (A) Mechanism of substrate desialylation by influenza virus neuraminidase according to Tu et al. (2017), where glycan is represented by –OR group and oxocarbenium ion transition- state intermediate is in orange color. (B) Structure of NAIs. (C) Crystal structure of neuraminidase in complex with peramivir. Detail of the active site is represented

by sticks of amino acids and structure of peremivir is in green. The image was created based on PDB files 2HTU using program Discovery Studio 2016.

The highest affinity towards NA compared to zanamivir (K_i =2.0 x 10^{-10} M), oseltamivir (K_i = 1.7 x 10^{-11} M) and laninavivir (IC_{50}= 1, 8 x 10^{-9} M) has peramivir which also provide the lowest IC value among all from NA inhibitors (IC_{50} = 3.8 x 10^{-10} M) (Ikematsu et al., 2015). Since four types of human NA (sialidases) NEU1, NEU2, NEU3 and NEU4 have been identified, is the seasonal use of NA associated with mild side effects. Data analysis indicates that oseltamivir does not significantly inhibit expressed NEU1, NEU3 or NEU4 human sialidase while zanamivir exhibits inhibitory effects in the micro-molar range against NEU3 (Li et al., 2007; Hata et al., 2008). However, the usage of oseltamivir in Japan is associated with abnormally effect in some cases. Studies using recombinant NEU2 have shown that nonsynonymous single nucleotide polymorphism R41Q frequently observed in Asian populations occurred lower sialidase activity and higher sensitivity to oseltamivir in compare to wild-type enzyme (Li et al., 2007).
Recently, it has been found that group-1 and group-2 of NA are structurally distinct. Group-1 contains a 150- cavity adjacent to their active site (Russell et al., 2006) and in addition according to Amaro et al. (2009), there are additional 371- and 430- cavities. These facts suggest that design of new influenza inhibitors could take advantage of 150-, 371- and 430- cavities. For exploiting of 150- pocket various kinds of oseltamivir analogues bearing different substituents mainly at the C-5 position were designed (Mohan et al., 2010; Mooney et al., 2014; Xie et al., 2014). Neri- Bazán et al. (2017) suggested using aniline- derivatives of oseltamivir for inhibiting of the NA of influenza viruses. These derivatives exhibit better affinity than oseltamivir in the presence or absence of H275Y mutations and other substitutions outside the binding site.
Also a series of acylguanidine- modified zanamivir analogues have been synthesized. The results of inhibitory activities of these compounds showed that acylguanidine- modified zanamivir analogues exhibit inhibitory activity against NAs of influenza viruses H1N1 and H3N2 at the nanomolar scale (Lin et al., 2013; Das et al., 2016; Li et al., 2017).
In the literature, we can also encounter NAIs isolated from natural materials. Kiyohara et al. (2012) describes a group of polyphenols isolated from the Pogostemon cablin, which have the potential to inhibit influenza A NA. The work of Grinke et al. (2012) points to the fact that almost 70 % of the compounds isolated from plant material with inhibition activity against NA are part of the flavonoid group. The review of Ide et al. (2016) summarizes probable mechanisms underlying the inhibitory effects of tea catechins against influenza infection. However, the evaluation of the inhibitory effect of substances isolated from plant material is problematic, because polyphenols, mainly flavonoids, naturally quench fluorescence signal of the 4-methylumbelliferone fluorescence reaction. Therefore, the reliability of a large number of neuraminidase inhibitors based on these compounds is questionable.

2.2 Mechanism of resistance to neuraminidase inhibitors

It was considered that active uncontrolled use of NAIs, such as zanamivir or oseltamivir would not has influence on the development of influenza strain resistance however, oseltamivir resistance was reported to be prevalent in seasonal H1N1 isolates from September 2008 to January 2009. The development of resistance has become an important concern, mainly in the case of Influenza A virus N1 subtypes which caused the latest pandemics.
NAI resistance is mediated by mutation within the NA gene itself that consists in amino acid reposition in the NA active site leading to decreased binding of the NAI into NA active site (Samson *et al.*, 2013). The most resistance has been seen with oseltamivir, this can be caused by its wide use in influenza treatment. A relatively few strain have been found to have

zanamivir and laninamivir resistant. These drugs are the most similar to the natural substrate therefore resistance is less frequently, however it does occur (Thorlund et al., 2011; Samson et al., 2013; McKimm-Breschkin, 2013).
Most of the previously reported NA substitutions connected with resistance to NAIs were located near the active site of NA enzyme and were found subtype specificity. Govorkova et al. (2001) shown that zanamivir was more potent in inhibiting enzyme activity in N2, N3, N6, N7 and N9 subtypes than oseltamivir and subtypes N1, N4, N5 and N8 are more sensitive to oseltamivir compare to zanamivir. These results may collaborate with their tertiary structure which can be classified in three clusters. First cluster obtains N1, N4, N5 and N8 subtypes, second N2, N3, N6, N7 and N9 subtypes. The last cluster includes NA from influenza virus B (Russell et al., 2006). Therefore, substitution of amino acid residues implicated in influenza virus resistance to NAIs in one group could not necessarily be related to NAIs resistance in another group.
The most common mutation that cause resistance as a result of oseltamivir treatment are H274Y and N294S mutations in N1 whereas R292K mutations are important form N2 viruses (Earhart et al., 2009; Samson et al., 2013). H274Y is not located in the active site; however, these mutation leads to repositioning a side chain that repels the carboxyl group of glutamic acid at position 276 and hydrophobic interaction with 3-pentyl group of oseltamivir cannot be formed. NA mutation R292K acts in a similar way (Boivin, 2013). In study of Tu et al. (2017), possible mutation site responsible for induced cross- resistance pattern to different NAIs including oseltamivir and zanamivir were found outside the NA active site. This analysis demonstrated a cascading effect caused by mutation I427T which affects to the arginine tirade (Arg118, Arg293 and Arg368) in the active site of NA.
Except for these mutations, several other drug resistant mutations occur in influenza virus strain with lower incidence. Mutations I222R/I222V causes IC_{50} values approximately 50- fold lower than oseltamivir (tested on A/Sydney/5/1957). Mutation at position 222 with combine to H274Y form a double mutant with IC_{50} value 10 000- fold lower (tested on A/Sydney/5/1957) (Boivin, 2013; McKimm- Breschkin, 2013).
However, it has been reported that same NA substitutions can restore viral fitness of some NAIs resistant influenza viruses including R222Q, V234M, D344N, T289M, N369K substitutions that restored fitness of the H275Y variant in pre- pandemic viruses (Abed et al., 2006; Rameix- Welti et al., 2011; Abed et al., 2014; Butler et al., 2014).

3 CONCLUSION

NAIs represent an important tool for the control of infections caused by influenza virus. They have a broader spectrum of antiviral activities and less potential for emergence of clinically important resistance compared with other influenza virus inhibitors. To date, potential emergence from resistance influenza viruses and cross-resistance with in-use antivirals is considered as one of population problems. For example, a rapid spread of oseltamivir resistance among seasonal H1N1 influenza viruses demonstrates that we cannot complacent with only one strategy. This has an impact on the global monitoring of NAIs resistance through the monitoring of drug resistance substitutions, the evaluation of effect of different combinations of existing influenza virus inhibitors and also for the development of new antiviral strategies to improve the outcome of influenza infection.

Acknowledgement
This work was supported by FPPV-05-2017 and FPPV-17-2017.

Sources

1. ABED, Y., PIZZORNO, A., BOUHY, X., RHEAUME, C., BOIVIN, G. *Impact of potential permissive neuraminidase mutations on viral fitness of the H275Y oseltamivir resistant influenza A(H1N1)pdm09 virus in vitro, in mice and in ferrets*. 2014, 88, p. 1652-1658, ISSN 1098-5514.
2. ABED, Y., BAZ, M., BOIVIN, G. *Impact of neuraminidase mutations conferring influenza resistance to neuraminidase inhibitors in the N1 and N2 genetic backgrounds*. 2006, 11, p. 971-976, ISSN 1359-6535.
3. AMARO, R., E., CHENG, X.L., IVANOV, I., XU, D., MCCAMMON. J.A. *Characterizing loop dynamics and ligand recognition in human- and avian-type influenza neuraminidases via generalized born molecular dynamics and end-point free energy calculations*. 2009, 131, p. 4702-4720, ISSN 0002-7863.
4. BABU, Y.S., CHAND, P., BANTIA, S., KOTIAN, P., DEHGHANI, A., EL-KATTAN, Y. *Discovery of a novel, highly potent, orally active, and selective influenza neuraminidase inhibitor through structure- based drug design*. 2003, 43, p. 3482-3486, ISSN 1520-4804.
5. BIRNKRANT, D., COX, E. *The emergency use authorization of peramivir for treatment of 2009 H1N1 influenza*. 2009, 361, p. 2204-2207, ISSN 0028-4793.
6. BOIVIN, G. *Detection and management of antiviral resistance for influenza viruses*. Switzerland: Springer, 2013, 7, p. 18-23, ISBN 3319517120.
7. BURMEISTER, W.P., BAUDIN, F., CUSACK, S., RUIGROK, R.W. *Comparison of structure and sequence of influenza B/Yamagata and B/Beijing neuraminidases shows a conserved "head" but much greater variability in the "stalk" and NB protein*. 1993, 192, p. 683-686, ISSN 0042-6822.
8. BUTLER, J., HOOPER, K.A., PETRIE, S., LEE, R., MAURER-STROH, S., REH, L., GUARNACCIA, T., BAAS, C., XUE, L., VITESNIK, S., LEANG, S.K., MCVERNON, J., KELSO, A., BARR, I.G., MCCAW, J.M., BLOOM, J.D., HURT, A.C., 2014. *Estimating the fitness advantage conferred by permissive neuraminidase mutations in recent oseltamivir resistant A(H1N1pdm09 influenza viruses*. 2014, 10, p. 1-13, ISSN 1553-7366.
9. CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC). *High levels of adamantane resistance among influenza A (H3N2) viruses and interim guidelines for use of antiviral agents- United States, 2005-06 influenza season*. 2006, 55, p. 44-46, ISSN 0892-3787.
10. CHONG, A.K., PEGG, M.S., TAYLOR, N.R., VON ITZSTEIN, M. *Evidence for a sialosyl cation transition-state complex in the reaction of sialidase from influenza virus*. 1992, 207, p. 335-343, ISSN 1432-1033.
11. COLMAN, P.M., HOYNE, P.A., LAWRENCE, M.C. *Sequence and structure alignment of paramyxovirus hemagglutinin-neuraminidase with influenza virus neuraminidase*. 1993, 67, p. 2972-2980, ISSN 2055-6128.
12. DAS, A., ADAK, A., K., PONNAPALLI, K. *Design and synthesis of 1,2,3-triazole-containing N-acyl zanamivir analogs as potent neuraminidase inhibitors*. 2016, 81, p. 397-406, ISSN 0223-5234.
13. EARHART, K., C., ELSAYED, N., M., SAAD, M., D. *Oseltamivir resistance mutation N294S in human influenza A(H5N1) virus in Egypt*. 2009, 2, p. 74-80, ISSN 1876-0341.
14. FOUCHIER, R., MUNSTER, V., WALLENSTEN, A., BESTEBROER, T., M., HERFST, S., SMITH, D., RIMMELZWAAN, G., F., OLSEN, B., OSTERHAUS, A. *Characterization of a novel influenza A virus hemagglutinin subtype (H16) obtained from black headed gulls*. 2005, 79, p. 2814-2822, ISSN 1098-5514.

15. GEMA, L. R., TOLENTINO-LOPEZ, L. E., MARTINEZ-RAMOS, F., PADILLA-MARTINEZ, I., GARCIA-MACHORRO, J., CORREA-BASURTO, J. *Targeting a cluster of arginine residues of neuraminidase to avoid oseltamivir resistance in influenza A (H1N1): a theoretical study*. 2015, 21, p. 1-16, ISSN 0948-5023.
16. GHATE, A.A., AIR, G.M. *Site-directed mutagenesis of catalytic residues of influenza virus neuraminidase as an aid to drug design*. 1998, 258, p. 320-331, ISSN 1742-4658.
17. GOVORKOVA, E.A., LENEVA, I.A., GOLOUBEVA, O.G., BUSH, K., WEBSTER, R.G. *Comparison of efficacies of RWJ-270201, zanamivir, and oseltamivir against H5N1, H9N2, and other avian influenza viruses*. 2001, 45, p. 2723-2732, ISSN 1532-0227.
18. HATA, K., KOSEKI, K., YAMAGUCHI, K., MORIYA, S., SUZUKI, Y., YINGSAKMONGKON, S., HIRAI, G., SODEOKA, M., VON ITZSTEIN, M., MIYAGI, T. *Limited inhibitory effects of oseltamivir and zanamivir on human sialidases*. 2008, 52, p. 3484-3491, ISSN 0066-4804.
19. IDE, K., KAWASAKI, Y., KAWAKAMI, K., YAMADA, H. *Anti-influenza virus effects of catechins: A molecular and clinical review*. 2016, 42, p. 4773-4783, 0929-8673.
20. IKEMATSU, H., KAWAI, N., IWAKI, N., KASHIWAGI, S. *In vitro neuraminidase inhibitory activity of four neuraminidase inhibitors against clinical isolates of influenza virus in the Japanese 2012-2013 season*. 2015, 21, p. 39-42, ISSN 1532-0227.
21. ISON, M., G., GUBAREVA, L. V., ATMAR, R.L., TREANOR, J., HAYDEN, F.G. *Recovery of drug-resistant influenza virus from immunocompromised patients: a case series*. 2006, 193, p. 760-764, ISSN 2472-4998.
22. KIM, C.U., LEW, W., WILLIAMS, M., LIU, H., ZHANG, L., SWAMINATHAN, S., BISCHOFBERGER, N., CHEN, M., MENDEL, D., TAI, CH., GRAEME LAVER, W., STEVENS, C.R. *Influenza neuraminidase inhibitors possessing a novel hydrophobic interaction in the enzyme active site: design, synthesis, and structural analysis of carbocyclic sialic acid analogues with potent anti-influenza activity*. 1997, 119, p. 681-690, ISSN 1520-5126.
23. KIYOHARA, H., ICHINO, C., KAWAMURA, Y., NAGAI, T., SATO, N., YAMADA, H. *Patchouli alcohol:* in vitro *direct anti-influenza virus sesquiterpene in Pogostemon cablin*. 2012, 66, p. 55-61, ISSN 1861-0293.
24. KOYAMA, K., TAKAHASHI, M., OITATE, M., NAKAI, N., TAKAKUSA, H., MIURA, S., OKAZAKI, O. *CS-8958, a prodrug of the novel neuraminidase inhibitor R-125489, demonstrates a favourable long-retention problem in the mouse respiratory tract*. 2009, 53, p. 4845-4851, ISSN 1098-6596.
25. KUBO, S., TOMOZAWA, T., KAKUTA, M., TOKUMITSU, A., YAMASHITA, M. 2010. *Laninamivir 1035 prodrug CS-8958, a long-acting neuraminidase inhibitor, shows superior anti- 1036 influenza virus activity after a single administration*. 2010, 54, p. 1256-1264, ISSN 2472-1212.
26. LEANG, S., KWOK, S., SULLIVAN, S., G., MAURER-STROH, S., KELSO, A., BARR, I., G., HURT, A., C. *Peramivir and laninamivir susceptibility of circulating influenza A and B viruses*. 2014, 8, p. 135-139, ISSN 1750-2659.
27. LI, C.Y., YU, Q., YE, Z. Q., SUN, Y., HE, Q., LI, X.M., ZHANG, W., LUO, J., GU, X., ZHENG, X., WIE, L. *A nonsynonymous SNP in human cytosolic sialidase in a small Asian population results in reduced enzyme activity: potential link with severe adverse reactions to oseltamivir*. 2007, 17, p. 357-362, ISSN 1001-0602.

28. LI, Z., MENGA, Y., XU, S., SHEN, W., MENG, Z., WANG, Z., DING, G., HUANG, W., XIAO, W., XU, J. *Discovery of acylguanidine oseltamivir carboxylate derivatives as potent neuraminidase inhibitors*. 2017, 10, 2772-2781, ISSN 0968-0896.
29. LIN, C.H., CHANG, T., DAS, A., FANG, M., HUNG, H., HSU, K., YANG, J., VON ITZSTEIN, M., MONG, K., HSU, T., LIN, CH. *Synthesis of acylguanidine zanamivir derivatives as neuraminidase inhibitors and the evaluation of their bio-activities*. 2013, 11, p. 39-43, ISSN 1477-0539.
30. MCKIMM-BRESCHKIN, J., L. *Influenza neuraminidase inhibitors: antiviral action and mechanisms of resistance*. 2013, 7, p. 25-36, ISSN 1750-2659.
31. MOHAN, S., MCATAMNEY, S., HASELHORST, T., VON ITZSTEIN, M., PINTO, B.M. *Carbocycles related to oseltamivir as influenza virus group-1-specific neuraminidase inhibitors*. 2010, 53, p 73-77, ISSN 1520-4804.
32. MOONEY, C.A., JOHNSON, S.A., HART, P., VAN UFFORD, Q., HAAN, C.A., MORET, E.E., MARTIN, N.I. *Oseltamivir analogues bearing N-substituted guanidines as potent neuraminidase inhibitors*. 2014, 57, p. 31-54, ISSN 1520-4804.
33. NERI-BAZÁN, R.M., GARCÍA-MACHORRO, J., MÉNDEZ-LUNA, D., TOLENTINOLÓPEZ, L.E., MARTÍNEZ-RAMOS, F., PADILLA-MARTÍNEZ, I.I., AGUILAR-FAISAL, L., SORIANO-URSÚA, M.A., TRUJILLOFERRARA, J.G., FRAGOSO-VÁZQUEZ, M- J., BARRÓN, B.L., CORREA-BASURTO, J. *Design, in silico studies, synthesis and in vitro evaluation of oseltamivir derivatives as inhibitors of neuraminidase from influenza A virus H1N1*. 2017, 128, p. 154-167, ISSN 1768-3254.
34. NEROME, R., HIROMOTO, Y., SUGITA, S., TANABE, N., ISHIDA, M., MATSUMOTO, M., LINDSTROM, S.E., TAKAHASHI, T., NEROME, K. *Evolutionary characteristics of influenza B virus its first isolation in 1940: dynamic circulation of deletion and insertion mechanism.* 1998, 143, p. 1569-1583, ISSN 1432-8798.
35. PALESE P, SCHULMAN J.L. *Mapping of the influenza virus genome: identification of the hemagglutinin and the neuraminidase genes*. 1976, 73, p. 2142-2146, ISSN 1091-6490.
36. RAMEIX-WELTI, M.A., MUNIER, S.L.E., GAL, S., CUVELIER, F., AGOU, F., ENOUF, V., NAFFAKH, N., VAN DER WERF, S. *Neuraminidase of 2007-2008 influenza A(H1N1) viruses shows increased affinity for sialic acids due to the D344N substitution*. 2011, 16, 597-603, ISSN 1359-6535.
37. RUSSELL, R.J, HAIRE, L.F., STEVENS, D.J., COLLINS, P.J., LIN, Y.P., BLACKBURN, G.M., HAY, A.J., GAMBLIN, S.J., SKEHEL, J.J. *The structure of H5N1 avian influenza neuraminidase suggests new opportunities for drug design*. 2006, 443, p. 45-49, ISSN 1476-4687.
38. SAMSON, M., PIZZORNO, A., ABED, Y., BOIVIN, G. *Influenza virus resistance to neuraminidase inhibitors*. 2013, 98, p. 174-185, ISSN 1872-9096.
39. THORLUND, K., AWAD, T., BOIVIN, G., THABANE, L. *Systematic review of influenza resistance to the neuraminidase inhibitors*. 2011, 11, p. 1-13, ISSN 1471-2334.
40. TU, V., ABED, Y., BARBEAU, X., CARBONNEAU, J., LAGÜE P., BOIVIN, G. *The I427T neuraminidase (NA) substitution, located outside the NA active site of an influenza A(H1N1) pdm09 variant with reduced susceptibility to NA inhibitors, alters NA properties and impairs viral fitness*. 2017, 137, p. 6-13, ISSN 0166-3542.
41. VARGHESE, J.N., LAVER, W.G., COLMAN, P.N. *Structure of the influenza virus glycoprotein antigen neuraminidase at 2,9 A resolution*. 1983, 303, p. 35-40, ISSN 1476-4687.

42. VARGHESE, J.N., SMITH, P.W., SOLLIS, S.L., BLICK, T.J., SAHASRABUDHE, A., MCKIMM-BRESCHKIN, J.L., COLMAN, P.M. *Drug design against a shifting target: a structural basis for resistance to inhibitors in a variant of influenza virus neuraminidase*. 1998, 6, p. 735-746, ISSN 0969-2126.
43. VAVRICKA, C.J., LIU, Y., KIYOTA, H., SRIWILAIJAROEN, N., QI, J., TANAKA, K., WU, Y., LI, Q., LI, Y., YAN. J., SUZUKI, Y., GAO, G.F. *Influenza neuraminidase operates via a nucleophilic mechanism and can be targeted by covalent inhibitors*. 2013, p. 1-8, ISSN 1476-4687.
44. VON ITZSTEIN, M, WU, W.Y, KOK, G. B., PEGG, M. S., DYASON, J. C., JIN, B., VAN PHAN, T., SMYTHE, M. L., WHITE, H. F., OLIVER, S. W., COLMAN, P. M., VARGHESE, J. N., RYAN, D. M., WOODS, J. M., BETHELL, R. C., HOTHAM, V. J., CAMERON, J. M., PENN, C., R. *Rational design of potent sialidase-based inhibitors of influenza virus replication*. 1993, 363, p. 418-423, ISSN 1476-4687.
45. WHO. Influenza (Seasonal). http://www.who.int/mediacentre/factsheets/fs211/en/; cited: October 2017.
46. XIE, Y., XU, D., HUANG, B., MA, X., QI, W., SHI, F., LIU, X., ZHANG, Y., XU, W. *Discovery of N-substituted oseltamivir derivatives as potent and selective inhibitors of H5N1 influenza neuraminidase*. 2014, 57, p. 8445-8458, ISSN 1520-4804.
47. YAMASHITA, M. *CS-8958, a prodrug of the new neuraminidase inhibitor R-125489, shows long-acting anti-influenza virus activity*. 2009, 53, p. 186-192, ISSN 1098-6596.
48. YEN, H.L., HOFFMANN, E., TAYLOR, G., SCHOLTISSEK, C., MONTO, A.S., WEBSTER, R.G., GOVORKOVA E. A. *Importance of neuraminidase active-site residues to the neuraminidase inhibitor resistance of influenza viruses*. 2006, 80, p. 8787-8795, ISSN 2055-6128.

Contact

Mgr. Sabina Lipničanová
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: sabina.lip@gmail.com

RNDr. Daniela Chmelová, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: daniela.chmelova@ucm.sk

Doc. RNDr. Miroslav Ondrejovič, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: miroslav.ondrejovic@ucm.sk

LOW-MOLECULAR COUMPOUNDS FROM PLANT MATERIALS WITH INHIBITION ACTIVITY TO SERINE PROTEASES

Barbora Legerská, Daniela Chmelová, Miroslav Ondrejovič

Abstract

Serine proteases represent one of the most important groups of proteases. The activity of serine proteases must be severely regulated, because these enzymes play significant role in the human diseases. The important control mechanism is the interaction of serine proteases with inhibitors which can be obtained from various sources including animal, plant, and microorganisms. Mainly plants represent the reservoir of large amount compounds which can be protein or non-protein compounds. Therefore, these compounds can be potentially use as drugs or excipient in medicine, especially those with low-molecular weight.

Key words: *serine protease, inhibitors, plant inhibitors, inhibition models*

1 INTRODUCTION

Proteases represent one of the major groups of industrial enzymes. Protease enzyme market is accounting for approximately 60 % of global enzyme sales (Zambare et al., 2011; Sawant and Nagendran, 2014). These enzymes catalyse the hydrolytic cleavage of proteins and peptides resulting in short peptide chains or free amino acids. These reactions are included in the proteolysis as the one of the most important reactions of many organisms as bacteria, yeasts, algae, plant and animals (Ravikumar et al., 2012; Vidyalakshmi and Selvi, 2013; Pant et al., 2015; El-Shora et al., 2016). Proteases can be found in intracellular as well as extracellular spaces. According to the mechanisms of catalysis and the functional groups of the active site, proteases can be divided to the families such as serine proteases, cysteine proteases, aspartic proteases and metalloproteases (Rao et al., 1998). Serine proteases (SPs) represent important targets for development of drugs against several diseases and the interest about this family is mainly due to their well-characterized properties and structures, diverse roles in organisms and pathological processes (Walker and Lynas, 2001).

Although these enzymes are necessary for life cycles of the cell and organism itself, their activity must be severely controlled. Both high and low levels of protease activities in the certain part of the living organism may be harmful (Koblinski et al., 2000; Greene and McElvaney, 2009; Eatemadi et al., 2017). Therefore, the control of protease activity is essential for the life of all organisms. The proteases are often produced as inactive proenzymes and their activation is provided *in situ* by various ways. After protease activation, the cells need other additional tools for the control of their activities. The important control mechanisms include interaction an active protease with inhibitors, which influence their activity and create less active or non-active complex (Habib and Fazili, 2007). Plants are known to have many secondary metabolites and compounds, which can be used in industries, agriculture and medicine. Many protease inhibitors isolated from plants were found to be effective against various diseases such as cardiovascular or inflammatory diseases or osteoporosis (Srikanth and Chen, 2016).

The aim of this review is to describe the basic information about SPs and their inhibition by low-molecular weight inhibitors present in plant material.

2 SERINE PROTEASES AND THEIR INHIBITORS

Serine proteases (SPs; EC 3.4.21.X) belong to group of endopeptidases and their active centre contains serine residue. SPs are involved in the protein metabolism, specifically protein catabolism, digestion, coagulation, apoptosis, immunity regulation and fertilization (Haley

and Wessel, 2004; Moffitt et al., 2007; Heutinck et al., 2010; Patel, 2017). Over one-third of all proteases are SPs and they can be divided into 13 clans and 50 families according to MEROPS classification system (Rawlings et al., 2004). Clan PA proteases (Proteases of mixed nucleophile, superfamily A) represent proteases are highly presented in eukaryotes and the family S1 represent the most studied family, consisting of two subfamilies (S1A, S1B). Subfamily S1B proteases are present in all cellular organisms and are responsible for intracellular protein cycle. S1A subfamily is less present in plants, prokaryotes and arches compared to people. Human's S1A subfamily is divided into many functional categories according their direct usage for the organism such as digestion, coagulation and immunity, tryptase, matriptase, kallikrein and granzymes (Di Cera, 2009). SPs are generally classified to three main categories: trypsin-like, chymotrypsin-like and elastase-like proteases (Walker and Lynas, 2001).

2.1 The catalytic mechanisms of serine proteases

SPs are characteristic by the presence of serine residue in active site. The presence of γ-hydroxyl group is necessary as nucleophile during hydrolysis of peptide bonds. Some other amino acids are directly involved into catalytic mechanism like His57 amino acid as general base/acid catalyst and Asp102 as amino acid residue for orientation of the catalytic histidine. SPs contain oxyanion binding site which is made from the backbone NH groups of Ser195 and Gly193 (Waler and Lynas, 2001). After binding the substrate to the enzyme active site, the OH group of Ser195 attacks the carbonyl carbon of scissile bond through general base catalysis by His57. The result of this reaction is the formation of tetrahedral intermediate which is stabilized via newly formed oxyanion component (Waler and Lynas, 2001; Di Cera, 2009). His57 acting as a general acid, transports a proton to amine of tetrahedral intermediate and subsequently are formed the products such as amine which leaves the enzyme after this reaction step and covalent acyl enzyme intermediate which generates a second tetrahedral intermediate by interaction with water molecule. The second tetrahedral intermediate disappears by general acid catalysis of His57. The result of reaction is acid and regenerated hydroxyl group of Ser195 (Waler and Lynas, 2001; Di Cera, 2009; Patel, 2017).

2.2 Serine protease inhibitors

Serine protease inhibitors (SPIs) belong to largest family of inhibitors distributed in nature. The most numerous group of SPIs are low-molecular weight molecules (3-25 kDa). On the base of their physical properties, these inhibitors can be classified on trypsin-like (amino acid residue is positively charged), chymotrypsin-like (large hydrophobic residue) and elastase-like protease inhibitors (small hydrophobic amino acid residue) (Rao et al., 1998; Gráf et al., 2013). In addition, these inhibitors can be categorized into 13 families based on their origin. For example, mammalian or microbial sources include inhibitors belong to the group such as Hirudin family, Bovine Pancreatic Trypsin inhibitor (BPTI) family, Kazal family, Chelonianin family, *Streptomyces* subtilisin inhibitor (SSI) family, Serpins family belong to families present in mammalian or microbial sources (Rachel and Sirisha, 2014). Seven families of SPIs belong to inhibitors of plant origin and include Plant Serpin family, Mustard trypsin inhibitors, Cucurbit family, Bowman-Birk family, Cereal super family, Potato serine protease inhibitor family, Kunitz-type family (Walker and Lynas, 2001; Habib and Fazili, 2007; Jamal et al., 2013; Rachel and Sirisha, 2014).

These inhibitors can be classified according to the interaction with target enzymes, although these have similar structure, resulting in different mechanisms of protease inhibition by various inhibitors (Jamal et al., 2013). In general, on the base of inhibition mechanism, we divide them into two groups: (i) irreversible (trapping) reaction or (ii) reversible tight binding reaction (Fig. 1).

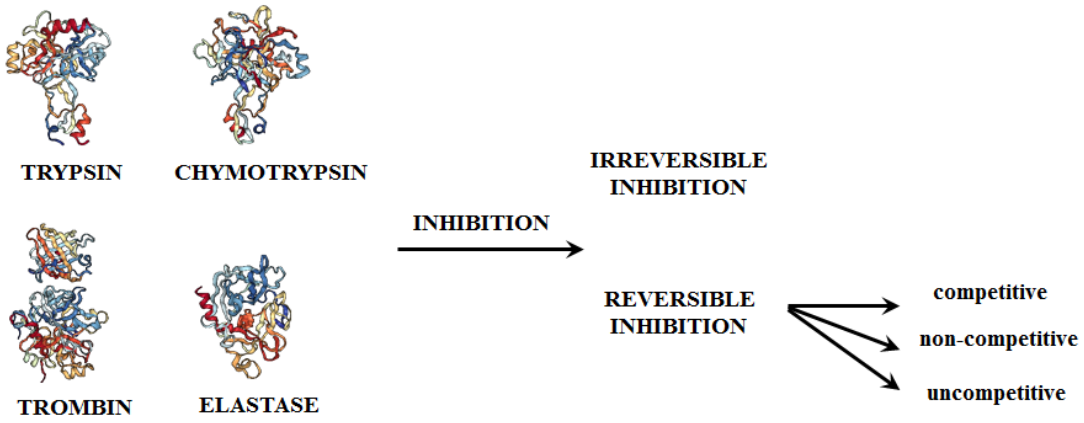


Figure 1: Serine protease inhibition scheme.

2.2.1 Irreversible trapping reactions

It is important to note that irreversible inhibition is not the same process as irreversible enzyme inactivation. Irreversible reactions by inhibitors require the proteolytic activation by protease which will be inhibited. Inhibitor acts as a substrate and use enzyme activity to trap and inhibition the protease (Farady and Craik, 2010). In general, irreversible inhibitors are specific for one class of enzymes, do not destroy protein structure, but exactly alter the active site of the enzyme (Lopina, 2017). Irreversible inhibitors react with enzyme, they can change them via covalent bond formation and modify key amino acid residues needed for enzyme activity (Johnson et al., 2010). The example of irreversible reaction by inhibitors can be diaryl esters of α-aminophosphonates or tiosyl phenylalanyl chloromethyl ketone (TPCK) for chymotrypsin. These inhibitors can be use in human and veterinary medicine as therapeutically active substances and for the monitoring of the development and progression of pathophysiological states in organisms (Sienczyk and Oleksyszyn, 2009; Johnson et al., 2010).

2.2.2 Reversible tight-binding reactions

The reversible inhibitors bound by non-covalent interaction to the enzyme. These inhibitors slow down its reaction rate but do not include the covalent modification like irreversible inhibitors. This group includes the physiological inhibitors controlling metabolism, and the synthetic inhibitors used like drugs. The inhibitors can be divided to three types according to the site of the interaction with enzyme: (i) competitive, (ii) non-competitive and (iii) uncompetitive inhibitors (Roskoski, 2007). A competitive inhibitor represents a molecule structurally similar to the substrate which binds to the active site of the enzyme. The competitive inhibition can be overcome by raising the substrate to the reaction. Non-competitive inhibitors react with the enzyme at allosteric sites, other than its active site. They do not affect binding of a substrate to the enzyme, but prevents the product formation. Uncompetitive inhibition is rarely, because the inhibitor takes place when an enzyme inhibitor binds to the complex of enzyme-substrate (Robinson, 2015).

2.3 Protein protease inhibitors from plants

The SPIs present in many plant sources (*Glycine max, Allium sativum)* (El-latif, 2015; Shamsi et al., 2016). Their inhibition mechanisms can be non-competitive, uncompetitive and competitive (Oddepally et al., 2013; Singh et al., 2014; Guimaraes et al., 2015; Cruz et al., 2016). SPIs from plant include mainly proteins with the molecular weight varied in the range from 4 to 85 kDa.

The most studied superfamily of plant protease inhibitors are Serpins with middle molecular weight (29-43 kDa). Serpins (α-antitrypsin, α-antichymotrypsin, C1-inhibitors, antithrombin) play important role in the control of proteases involved in the inflammatory, complement, coagulation and fibrinolytic pathways, respectively, and are associated with diseases like emphysema/cirrhosis, angioedema or familial dementia (Khan et al., 2011; Chen et al., 2013; Wang et al., 2014).

Kunitz inhibitor family representing family are able to inhibit SPs, but also exhibit inhibition effect toward other proteinases (Smith et al., 2016). They are present in various plants and have low molecular weight (18-22 kDa). The presence of two disulphide bridges and one reactive site form the structure specificity of these inhibitor family (Ranasinghe and McManus, 2013; Farady and Craik, 2014; Smith et al., 2016). Most of Kunitz family inhibitors belong to anti-coagulant substances and some act a protection against microbial pathogen attackers (Ranasinghe and McManus, 2013) or anti-proliferative activity on leukemia and lymphoma cells (Li et al., 2017).

Bowman-Birk family inhibitors were found in various plant species. These compounds inhibit mainly trypsin-like and chymotrypsin-like proteases (Birk, 1985; Barbosa et al., 2007; Safavi and Rostami, 2012). Molecular weight of Bowman-Birk family inhibitors is ranged between 6-9 kDa consisting of one polypeptide chain with a conserved 14 cysteine residues forming seven disulphide bridges, which are responsible for the stability and the double headed structure of this inhibitor family (Qi et al., 2005). Both Bowman-Birk family inhibitors and Kunitz-Trypsin inhibitors can be used as chemo-preventive, anti-metastatic (Kobayashi, 2013) and anti-carcinogenic agents (Costa Souza et al., 2014).

Cereal inhibitor family (Cereal trypsin/-amylase inhibitors) is a small group of protease inhibitors extracted from cereals such as wheat, barley or maize (Rawlings et al., 2004; Rachel and Sirisha, 2014). These inhibitors belong to family of inhibitors which can inhibit SPs or α-amylases, but few of them are bifunctional. These inhibitors contain of a polypeptide chain with five disulphide bonds and their molecular weight is approximately 12-16 kDa (Iulek et al., 2000; Zevallos at al., 2017).

Squash inhibitor family (Cucurbit family) is a small group of inhibitors described only in plants, namely in the plant family *Cucurbitaceae*. The members of this inhibitor family consist from small peptide chain containing between 28-30 amino acids with molecular weight of 3.0 - 3.5 kDa (Hernandez et al., 2000; Heitz et al., 2001; Laure et al., 2006).

Potato inhibitor family is synthetized in plant belong to the *Solanaceae* family and contains two types of potato inhibitors: (i) potato type I inhibitor and (ii) potato type II inhibitor (Dunse et al., 2010). Members of this family are most extensively characterized plant protease inhibitors (Turra and Lorito, 2011). Potato inhibitor family has low molecular weight (~8 kDa), mostly monomeric with a lack of disulphide bonds (Jamal et al., 2013).

Mustard (Sinapis) inhibitors represent inhibitors with small polypeptide chain (7 kDa) (Menegatti et al., 1992). These inhibitors can be isolated from white mustard and tape (Menegatti et al., 1992; Ascenzi et al., 1999).

2.4 Non-protein protease inhibitors from plant

Plant material contains also non-protein compounds with anti-protease activity including phenols, terpenes and alkaloids (Maione et al., 2013). These substances dispose different activities using in medicine as protease inhibitors (Rohn et al., 2002; Shahwar et al., 2012).

Shahwar et al. (2012) tested phenolic compounds from plants (*Cinnamomum zeylanicum, Impatiens bicolor, Melia azedarach and Allium cepa*) as trypsin inhibitors. The cinnamic acid isolated from *C. zeylanicum* was active as non-competitive inhibitor of trypsin and K_i value was determined on 0.102 mM. Other tested phenolic compounds studied in this work showed lower inhibition activity than cinnamic acid. For example, caffeic acid isolated from

C. zeylanicum and ferulic acid from *I. bicolor* showed only 84 % and 60 % of inhibition activity of cinnamic acid, respectively. Inhibition activity of plant material toward trypsin observed also Mayasa et al. (2016). They detected antioxidant and anti-proteinase activity of phenolic compounds present in different plant material (*Allium sativum, Zinziber officinalis, Solanum tuberosum, Glycine max, Syzigium cumini, Momardica charantia, Solanum lycopersicum, Curcuma longa*). The highest concentration of phenolic compounds was measured by the *S. cumini* extract (3.67±0.24 mg/ml), but the highest inhibition of trypsin was determined in the extract prepared from *S. tuberosum* (83.77 %).
Phenolic compounds such as gallic acid, catechin, epigallocatechin gallate, syringic acid, resveratrol and quercetin isolated by Simao et al. (2017) from tree cultivars of *Psidium guajava* inhibited all digestive enzymes (α-amylase, α-glycosidase, lipase, and trypsin). Rajic et al. (2000) studied plant compounds (α-amyrin, lupeol linoleate, lupeol palmitate, α-amyrin linoleate, lupeol) isolated from *Alstonia boonei* as potential trypsin and chymotrypsin inhibitors. They observed competitive and non-competitive model of inhibition of trypsin and chymotrypsin, but only weak inhibition of porcine pancreatic elastase. Ahmad et al. (2008) studied the kinetics of the α-chymotrypsin inhibition by phenolic glycoside isolated from *Symplocos racemose.* Authors found that benzoylsalireposide from *S. racemose,* was the main non-competitive inhibitor with *Ki* value of 29.60 μM.
Phenolic compounds do not inhibit all SPs. In work Melzig et al. (2005) compared the inhibition effect of caffeic acid esters toward two serine proteinase such as neutrophil elastase and thrombin. Whereas *n*-octylcaffeic acid was the best inhibition compounds toward neutrophil elastase, thrombin was only weakly inhibited by some esters of caffeic acid. The inhibition activity was measured in the case of caffeic acid ester with shorter aliphatic chain (n-octadecyl- and n-hexadecyl- derivates was not active).
Lee et al. (2017) and Tan et al. (2016) tested the inhibition activity of compounds (epimedokoreanin, 5,7,4′-rihydroxy-8,3′-prenylflavone, neophellamuretin, icariside) isolated from *Epimedium koreanum* towards neutrophil elastase. All phenolic compounds showed inhibition effect towards tested SP and the mechanism of inhibition was mixed type with the highest inhibition in the case of neophellamuretin (*Ki* 19.4 μM).

3 CONCLUSION

Serine proteases represent the group of proteases present in various organisms with important metabolic functions such as digestion, coagulation, apoptosis, immunity regulation, fertilization and their activity must be severely controlled. The high concentration or activity can cause illnesses and can be dangerous for the organism itself. The use of inhibitors presenting in animals, plant or microorganisms, is suitable for the control of enzymatic reaction. The plants represent the great source of inhibitors belonging to protein and non-protein compounds. These compounds can inhibit (competitive or non-competitive) the enzymatic reaction. For this reason, it is possible that these compounds can be used for treatment of human and animal diseases.

Acknowledgement
This work was supported by grand of APVV-16-0088, APVV-14-0939 and FPPV-17-2017.

Sources

1. AHMAD, V. U., LODHI, M. A., ABBASI, M. A., CHOUDHARY, M. I. *Kinetics study on a novel natural inhibitor of α-chymotrypsin.* 2008, 79, p. 505-508, ISSN 0367-326X.
2. ASCENZI, P., ROUPPOLO, M., AMORESANO, A., CONSONNI, R., ZETTA, L., PASCARELLA, S., BORTOLOTTI, F., MENEGATTI, E. *Characterization of low-*

molecular-mass trypsin isoinhibitors from oil-rape (Brassica napus var. oleifera) seed. 1999, 261, p. 275-284, ISSN 1432-1033.

3. BARBOSA, J. A. R. G., SILVIA, L. P., TELES, R. C. L., ESTEVES, G. F., AZEVEDO, R. B., VENTURA, M. M., FREITAS, S. M. *Crystal structure of the Bowman-Birk inhibitors from Vigna unguiculata seeds in complex with β.trypsin at 1.55 A resolution and its structural properties in association with proteinases.* 2007, 92, p. 1638-1650, ISSN 1542-0086.
4. BIRK, Y. *The Bowman-Birk inhibitor. Trypsin- and chymotrypsin-inhibitor from soybeans.* 1985, 25, p. 113-131, ISSN 0367-8377.
5. COSTA SOUZA, L., CAMARGO, R., DEMASI, M., SANTASA, J. M., MARTINS DE SA, C., DE FREITAS, S. M. *Effect of an anticarcinogenic Bowman-Birk protease inhibitor on purified 20S proteasome and MCF-7 breast cancer cells.* 2014, 9, p. 1- 12, ISSN 1932-6203.
6. CRUZ, A. C. B., MASSENA, F. S., MIGLIOLO, L., MACEDO, L. L. P., MONTEIRO, N. K. V., OLIVEIRA, A. S., MACEDO, F. P., UCHOA, A. F., GROSSI DE SA, M. F., VASCONCELOS, I. M., MURAD, A. M., FRANCO, O. L., SANTOS, E. A. *Bioinsecticidal activity of a novel Kunitz trypsin inhibitor from Catanduva (Piptadenia moniliformis) seeds.* 2013, 70, p. 61-68, ISSN 0981-9428.
7. DI CERA, E. *Serine protease.* 2009, 61, p. 510-515, ISSN 1521-6551.
8. DUNSE, K. M., STEVENS, J. A., LAY, F. T., GASPAR, Y. M., ANDRESON, M. A. *Coexpression of potato type I and II proteinase inhibitors giver cotton plants protection against insect damage in the field.* 2010, 107, p. 15011-15015, ISSN 1091-6490.
9. EATEMADI, A., AIYELABEGAN, H. T., NEGAHDARI, B., MAZLOMI, M. A., DARAEE, N., EATEMADI, R., SADRODDINY, E. *Role of protease and protease inhibitors in cancer pathogenesis and treatment.* 2016, 86, p. 221-231, ISSN 0753-3322.
10. EL-LATIF, A. O. A. *Protease purification and characterization of a serine protease inhibitor from Egyptian varieties of soybean seeds and its efficacy against Spodoptera littoralis.* 2015, 55, p. 18-25, ISSN 1899-007X.
11. EL-SHORA, H. M., ABOU-EL-WAFA, G. S., KADHIM, A. I. *Purification and biochemical characteristic of protease from the red seaweed Petrocladia capillacea.* 2016, 5, p. 297-308, ISSN 2319-7706.
12. FARADY, C. J., CRAIK, C. K. *Mechanisms of macromolecular protease inhibitors.* 2010, 11, p. 2341-2346, ISSN 1439-7633.
13. GRÁF, L., SZILÁGYI, L., VENEKEI, I. *Handbook of proteolytic enzymes*. 3, Academic Press, 2013, p. 2626-2633, ISBN 978-0-12-382219-2.
14. GREENE, C. M., MCELVANEY, N. G. *Proteases and antiproteases in chronic neutrophilic lung disease- relevance to drug discovery.* 2009, 158, p. 1048-1058. ISSN 1476-5381.
15. GUIMARAES, L. C., DE OLIVEIRA, C. F., MARANGONI, S., DE OLIVEIRA, D. G., MACEDO, M. L. *Purification and characterization of a Kunitz inhibitor from Poincianella pyramidalis with insecticide activity against the Metiterranean flour moth.* 2015, 118, p. 1-9, ISSN 1095-9939.
16. HABIB, H., FAZALI, K. M. *Plant protease inhibitors: a defense strategy in plants.* 2007, 2, p. 68-85, ISSN 1538-2273.
17. HALEY, A. S., WESSEL, G. M. *Regulated proteolysis by corcinal granule serine protease 1 at fertilization*. 2004, 15, p. 2084-2092, ISSN 1939-4586.
18. HEITZ, A., HERNANDER, J. –F., GAGNON, J., HONG, T. T., PHAM, T. T. CH., NGUYEN, T. M., LE-NGUYEN, D., CHICHE, L. *Solution structure of the squash*

trypsin inhibitor McotI-II. A new family for cyclic knottins. 2001, 10, p. 7973-7983, ISSN 1520-4995.
19. HERNNDEZ, J. F., GAGNON, J., CHICHE, L., NGUYEN, T. M., ANDRIEU, J. P., TRINH HONG, T., PHAM, T. T., LE NGUYEN, G. *Squash trypsin inhibitors from Momordica cochinchinensis exhibit an atypical macrocyclic structure.* 2000, 39, p. 5722-5730, ISSN 1520-4995.
20. HEUTINCK, K. M., BERGE, I. J., HACK, C. E., HAMANN, J., ROWSHANI, A. T. *Serine proteases of the human immune system in health and disease.* 2010, 47, p. 1943-1955, ISSN 1872-9142.
21. CHEN, H., DAVIS, J. A., ZHENG, D., BRYANT, M., BOT, I., VAN BECKEL, T. J., BIESSEN, E., PEPINE, C., RYMAN, K., PROQULSKI-FOX, A., KESAVALU, L., MOYER, R., MCFADDEN, G., LUCAS, A. *The serpin solution; targeting thrombotic and thrombolytic serine proteases in inflammation.* 2013, 13, p. 99-110, ISSN 2212-4063.
22. IULEK, J., FRANCO, O. L., SILVA, M., SLIVINSKI, C. T., BLOCH, C., RIGDEN, D. J., GROSSI DE SA, M. F. *Purification, biochemical characterization and partial primary structure of a new alpha-amylase inhibitor from Secale cereal (rye).* 2000, 32, p. 1195-1204, ISSN 1878-5875.
23. JAMAL. F., PANDEY, P. K., SINGH, D., KHAN, M. Y. *Serine protease inhibitors in plants: nature´s arsenal crafted for insect predators.* 2013, 12, p. 1-34, ISSN 1568-7767.
24. JOHNSON, D. S., WEERAPANA, E., CRAVATT, B. F. *Strategies for discovering and derisking covalent, irreversible enzyme inhibitors*. 2010, 2, p. 949-964, ISSN 1756-8927.
25. KHAN, S. M., SINGH, P., AZHAR, A., NASEEM, A., RASHID, Q., KABIR, M. A., JAIRAJPURI, M. A. *Serpin inhibition mechanisms: a delicate balance between native metastable state and polymerization.* 2011, 1, p. 1-10, ISSN 2090-0112.
26. KOBAYASHI, H. *Prevention of cancer and inflammation by soybean protease inhibitors.* 2013, 5, p. 966-973, ISSN 1945-0508.
27. KOBLINSKI, J. E., AHRAM, M. SLOANE, B. F. *Unraveling the role of proteases in cancer.* 2000, 291, p. 113-135, ISSN 0009-8981.
28. LAURE, H. J., FACA, V. M., IZUMI, C., PADOVAN, J. C. GREENE, L. J. *Low molecular weight squas trypsin inhibitors from Sechium edule seeds*. 2006, 67, p. 362-370, ISSN 1873-3700.
29. LI, M., LIU, Q., CIU, Y., LI, D., WANG, H., NG, T. B. *Isolation and characterization of a Phaseolus vulgarity trypsin inhibitor with antiproliferative activity on leukaemia and lymphoma cells.* 2017, 22, p. 1-10, ISSN 1420-3049.
30. LEE, S. M., SONG, Y. H., UDDIN, E., BAN, Y. J., PARK, K. H. *Prenylated flavonoids from Epimedium koreanum nakai and human neutrophil elastase inhibitory effects.* 2017, 11, p. 514-520, ISSN 1307-6167.
31. LOPINA, O. D. *Enzyme inhibitors and activators.* 1, InTech Rjeka, 2017, p. 15, ISBN 978-953-51-5055-8.
32. MAIONE, F., CICALA, C., MUSCIACCO, G., DE FEO, V., AMAT, A. G., IALENTI, A., MASCALO, N. *Phenols, alkaloids and terpenes from medical plants with antihypertensive and vasorelaxant activities. A review of natural products as leads to potential therapeutic agents.* 2013, 8, p. 539-544, ISSN 1555-9475.
33. MAYASA, V., RASAL, V. K., UNGER, B. S. *Evaluation of phenol content, antioxidant and proteinase inhibitory activity of plant derived protease inhibitors of eight anti-diabetic plants.* 2016, 9, p. 1-5, ISSN 2455-3891.

34. MELZIG, M. F.M, TRAN, G. D., HENKE, K., SELASSIE, C. D., VERMA, R. P. *Inhibition of neutrophil elastase and trombone activity by caffeic acid ester.* 2005, 60, p. 869-872, ISSN 0031-7144.
35. MENEGATTI, E., TEDESCHI, G., RONCHI, S., BORTOLOTTI, F., ASCENZI, P., THOMAS, R. M., BOLOGNESI, M., PALMIERI, S. *Purification, inhibitory properties and amino acid sequence of a new serine proteinase inhibitor from white mustard (Sinapis alba L.) seed.* 192, 301, p. 10-14, ISSN 1873-3468.
36. MOFFITT, K. L., MARTIN, S. L., WALKER, B. *The emerging role of serine proteases in apoptosis.* 2007, 35, p. 559-600, ISSN 1470-8752.
37. ODDEPALLY, R., SRIRAM, G., GURUPRASAD, L. *Purification and characterization of a stabile Kunitz trypsin inhibitor from Trigonella foenum-graecum (fenugreek) seeds.* 2013, 96, p. 26-36, ISSN 1873-3700.
38. OSKOUEIAN, E., ABDULLAH, N., AHMAD, S., ZUHAINIS SAAD, W., RAHMAN OMAR, A., WAN HO, Y. *Bioactive compounds and biological activities of Jatropha curcas L. kernel meal extract.* 2011, 12, p. 5955-5970, ISSN 1422-0067.
39. PANT, G., PRAKASH, A., PAVANI, J. V. P., BERA, S., DEVIRAM, G. V. N. S., KUMAR, A., PANCHPURI, M., PRASUNA, R. G. *Production, optimization and partial purification of protease from Bacillus subtilis.* 2015, 9, p. 50-55, ISSN 1658-3655.
40. PATEL, S. *A critical review on serine protease: Key immune manipulator and pathology mediator.* 2017, 45, p. 1-13, ISSN 1578-1267.
41. QI, R. F., SONG, Z. W., CHI, C. W. *Structural features and molecular evolution of Bowman-Birk protease inhibitors and their potential application.* 2005, 37, p. 283-292, ISSN 1745-7270.
42. RACHEL, K. V., SIRISHA, G. V. D. *A review of protease inhibitors from different sources.* 2014, 4, p. 1-18, ISSN 2318-4448.
43. RANASINGHE, S., MCMANUS, D. P. *Structure and function of invertable Kunitz serine protease inhibitors.* 2013, 39, p. 219-227, ISSN 1879-0089.
44. RAO, B. M., TANKSALE, A. M., GHATGE, M. S., DESHPANDE, V. V. *Molecular and biotechnological aspects of microbial proteases.* 1998, 62, p. 597-635, ISSN 1098-5557.
45. RAVIKUMAR, G., GOMATHI, D., KALAISELVI, M., UMA, C. *A protease from the medicinal mushroom Pleurotus sajor-caju; production, purification and partial characterization*. 2012, 2, p. 411-417, ISSN 2221-1691.
46. RAWLINGS, N. D., TOLLE, D. P., BARETT, A. J. *Evolutionary families of peptidase inhibitors*. 2004, 378, p. 705-716, ISSN 1470-8728.
47. RAJIC, A., KWEIFIO-OKAI, G., MACRIDES, T., SANDEMAN, R. M., CHANDLER, D. S., POLYA, G. M. *Inhibition of serine protease by anti-inflammatory triterpenoids.* 2000, 66, p. 206-2010, ISSN 1439-0221.
48. ROBINSON, P. K. *Enzymes: principles and biotechnological application.* 2015, 59, p. 1-41, ISSSN 1744-1358.
49. ROHN, S., RAWEL, H. M., KROLL, J. *Inhibitory effect of plant phenols on the activity of selected enzymes*. 2002, 50, p. 3566-3571, ISSN 1520-5118.
50. ROSKOSKI, R. *Modulation of enzyme activity. The comprehensive pharmacology references.* 2007, p. 1-11. ISBN 978-0-08-055232-3.
51. SAFAVI, F., ROSTAMI, A. *Role of serine proteases in inflammation: Bowman-Birk protease inhibitor (BBI) as a potential therapy for autoimmune diseases.* 2012, 93, p. 428-433, ISSN 1096-0945.
52. SAWANT, R. S., NAGENDRAN, S. *Protease: an enzyme with multiple industrial applications*. 2014, 3, p 568-579, ISSN 2278-4357.

53. SHAMSI, T. N., PARVEEN, R., AMIR, M., BAIG, M. A., QURESHI, M. I., ALI, S., FATIMA, S. *Allium sativum protease inhibitor: a novel Kunitz trypsin inhibitor from garlic is a new comrade of the Serpin family*. 2016, 11, ISSN 1932-6203.
54. SHAHWAR, D., RAZA, M. A., SHAFIG-UR-REHMAN, ABBASI, M. A., ATTA-UR-RAHMAN. *An investigation of phenolic compounds from plant as trypsin inhibitors.* 2012, 26, p. 1087-1093, ISSN 1478-6427.
55. SIENCZYK, M., OLEKSYSZYN, J. *Irreversible inhibition of serine proteases-design and in vivo activity of diaryl alpha-aminophosphonate derivates.* 2009, 16, p. 1673-1687, ISSN 1875-533X.
56. SINGH, D., JAMAL, F., PANDEY, P. K. *Kinetic assessment and effect on developmental physiology of a trypsin inhibitor from Eugenia jambolana (Jambul) seed on Helicoverpa armigera (Hubner).* 2014, 85, p. 94-113, ISSN 1520-6327.
57. SIMAO, A. A., MARQUES, T. R., MARCUSSI, S., CORREA, A. D. *Aqueous extract of Psidium quajava leaves: phenolic compounds and inhibitory potential on digestive enzymes.* 2017, *in press*, ISSN 1678-2690.
58. SMITH, D., TIKHONOVA, I. G., JEWHURST, H. L., DRYSDALE, O. C., DVOŘAK, J., ROBINSON, M. W., CWIKLINSKI, K., DALTON, J. P. *Unexpected activity of a novel kunitz-type inhibitor: Inhibition of cysteine proteases but not serine proteases*. 2016, 291, p. 19220-19234, ISSN 1949-8454.
59. SRIKANTH, S., CHEN, Z. *Plant protease inhibitors in therapeutics-focus on cancer therapy*. 2016, 7, p. 1-19, ISSN 1663-9812.
60. TAN, X. F., KIM, D. W., SONG, Y. H., YUK, H. J., WANG, Y., CURTIS-LONG, M. J., PARK, K. H. *Human neutrophil elastase inhibitory potential of flavonoids from Campylotropis hirtella and their kinetics.* 2016, 31, p. 16-22, ISBN 1475-6374.
61. TURRA, D., LORITO, M. *Potato type I and II proteinase inhibitors: modulating plant physiology and host resistance.* 2011, 12, p. 374-384, ISSN 1875-5550.
62. VIDYALAKSHMI, A., SELVI, S. E. *Protease activity of floral extract of Jasminum grandiflorum L., a wound healing herb*. Journal of Medicinal Plants Studies. 2013, 1, p. 11-15, ISSN 2320-3862.
63. WANG, Y., KOSTER, K., LUMMER, M., RAGG, H. *Origin of serpin-mediated regulation of coagulation and blood pressure.* 2014, 9, p. 1- 11, ISSN 1932-6203.
64. WALKER, B., LYNAS, J. F. *Strategies for the inhibition of serine proteases*. 2001, 58, p. 596-624, ISSN 1420-9071.
65. ZAMBARE, V., NILEGAONKAR, S., KANEKAR, P. *A novel extracellular protease from* Pseudomonas aeruginosa *MCM B-327: enzyme production and its partial characterization.* New Biotechnology. 2011, 28, p. 173-181, ISSN 1389-0344.
66. ZEVALLOS, V. F., RAKER, V., TENZER, S., JIMENEZ-CALVENTE, C., ASHFAG-KHAN, M., RUSSEL, N., PICKERT, G., SCHILD, H., STEINBRINK, K. *Nutritional wheat amylase-trypsin inhibitors promote intestinal inflammation via activation of myeloid cells.* 2017, 152, p. 1100-1113, ISSN 0016-5085.

Contact

Mgr. Barbora Legerská
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: legerskab@gmail.com

RNDr. Daniela Chmelová, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: daniela.chmelova@ucm.sk

Doc. RNDr. Miroslav Ondrejovič, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321
email: miroslav.ondrejovic@ucm.sk

BACTERIOCINS AS TOOL FOR MILK PROTECTION DURING PREPROCESSING PHASE

Lucia Pukančíková, Miroslav Ondrejovič, Daniela Chmelová

Abstract

The aim of this study was the confirmation of elimination of potentially problematic microorganisms present in raw cow milk by bacteriocins produced in situ by *Lactococcus lactis* in the milk during preprocessing phase. We studied the effect of physical and biological pre-processing methods for elimination of present microbial culture which can caused some problems during milk processing or during the storage of final milk products. Studied physical method of raw cow milk pretreatment was pasteurization which is routinely used method in dairy industry as the first step processing of the milk. Many microorganisms present in raw cow milk can survive the thermal treatment at 73 °C for 30 seconds. Studied biological method of raw cow milk pretreatment was the use of bacteriocins produced by *L. lactis* routinely using for some fermentation processing of milk. Bacteriocins-producing bacteria can effective eliminated all of bacterial strains present in raw cow milk; except for yeasts.

Key words: *lactic acid bacteria, bacteriocins, pre-processing phase, milk, pasteurization*

1 INTRODUCTION

In the dairy, many thermal methods are used for removing of microbial microflora and enzymes. These methods are based on effect of heat at various level and duration. These methods can be divided to four groups, namely pasteurization, sterilization, UHT (ultrahigh temperature) and UHPH (ultra-high pressure homogenization). Pasteurization, it can be long (65 °C, 30 min), middle (72 – 74 °C, 5 - 40 s) or high (85 °C, 4 - 25 s). High pasteurization is used in drinking milk, middle in cheese production and long in smaller dairy products. Sterilization means heating milk above 100 °C. Originally, sterilization was performed in packages in which the milk was pre-heated and consequently sterilized (110-130 °C). Thanks to this, the milk used to have better sensory and even nutritional quality. UHT treatment (ultrahigh temperature) is a continuous heating of milk at high temperatures for short time. UHT treatment is used in producing long-life milk and includes several technological operations and procedures. UHPH (ultra-high-pressure homogenization) is an alternative of thermal milk treatment. It represents homogenization under high pressure.

For long storage of milk, it is recommended the removing of water because water is essential components for the majority of enzyme reaction. Therefore, the complete water removing from milk can suppress the enzyme activities. Many enzymes can be inactivated by increased salt concentration but for total suppression of enzyme activities is necessary to decrease water activity of the environment.

The physical methods of milk treatment are usable for specific application but more interesting are methods based on biological reactions ongoing in the nature. Natural methods for control of undesirable microorganisms in the milk are fermentation by lactic acid bacteria. This approach uses bacterial antagonism as a tool for control of adverse bacteria. Bacterial antagonism has been recognized for over a century. Currently, this phenomenon is studied by scientific methods and the results suggest that lactic acid bacteria are able to eliminate undesirable microorganism because these bacteria produce some antimicrobial compounds called bacteriocins. Bacteriocins are naturally compounds which using in human diet is

verified long-term observation and therefore are potential usable as safe additives for food preservation.
The aim of this study was the confirmation of elimination of potentially problematic microorganisms present in raw cow milk by bacteriocins produced *in situ* by *Lactococcus lactis* in the milk during preprocessing phase.

2 MATERIAL AND METHODS

2.1 Microbial strains from raw cow milk

Bacterial strains used in this work were isolated from the raw cow milk from Slovak dairy farm (Senica, Slovakia). The isolation of these microorganisms and their identification by MALDI-TOF MS is described in our previous study (Pukančíková et al., 2016). Microbial isolates were cultivated on nutrition agars (MPA or MRS), re-streaking on new solid media at two-week interval and storage at 4 °C.

2.2 Pasteurization

The model milk was prepared by mixing dried milk in distilled water in ratio 1:10 (w/v). After solubilization, the model milk was sterilized at 120 °C during 20 minutes. Selected microbial strains were separately inoculated in prepared cooled model milk. Microorganisms were cultivated during 72 hours at laboratory temperature. By this method, some model milks inoculated by one-strain culture were prepared. These milks were treated by pasteurization at 73 °C during 30 seconds in accordance with High temperatures short time treatments pasteurization (Bylund, 2003). In the collected samples, the microorganism count was determined by standard method for cultivation of microorganism counting. 200 µl of microbial sample was suitably diluted and spread onto both nutrition agars, namely MPA and MRS. The microorganisms were cultivated at laboratory temperature for 48 hours. Thereafter, grown colonies were count and colony formation unit (CFU) present in 1 ml of microbial sample were calculated according to equation:

$$CFU.ml^{-1} = \frac{CFU \text{ per plate x dilution factor}}{\text{volume of sample taken [ml]}} \quad (1)$$

2.3 Determination the ability of biofilm formation

The ability of biofilm formation by selected microorganisms isolated from raw cow milk was determined according to Teh et al. (2011) with some modifications. For better comparison with technological conditions, the stainless cylinders were used as the matrix for biofilm formation. The biofilm formation was carried out in model milk prepared according to Chapter 2.2. The stainless cylinders were added after inoculation of selected microorganism. After cultivation at laboratory temperature for 48 hours, the stainless cylinders were taken out, rinsed by sterile distilled water and added into sterile peptone water (0.1 % (w/v)) with glass balls. After mixing for 2 minutes, CFU of microorganism in prepared suspension were determined.

2.4 Sensitivity of isolates from milk to bacteriocins

The sensitivity of isolates from milk to bacteriocins produced by *Lactococcus lactis* was determined by the double-layer method (Booth et al., 1977). The inoculum of *L. lactis* was prepared in MRS broth. After cultivation overnight, the inoculum was spotted onto the surface of MRS agar. After incubation at 37 °C for 48 hours, the agar in petri dishes was overlaid with 6 ml of soft MPA containing 0.7 % (w/v) of agar which had been inoculated with 0.2 ml of MPB overnight culture of tested isolates from milk. After incubation for 72 hours, the

plates were evaluated for the present of inhibition zones. Experiments were carried out in triplicate.

3 RESULTS AND DISCUSSION

3.1 The effect of pasteurization on microbial population of raw cow milk

The raw cow milk is the source of variable microorganisms which can be classified on the base of their thermotolerance into three groups including psychrotropics, mesophiles, and thermophiles. This classification also describes their ability to survive the thermal processes used in food industries for elimination natural microflora. Their present in intermediate and final products can be problematic due to sensory and microbial stability.

In our previous work (Pukančíková et al., 2016), we determined some bacterial species present in the raw cow milk by the MALDI-TOF analysis. This microbial population included psychrotropics such as *Acinetobacter johnsonii*, *Citrobacter braakii*, *Pseudomonas fragi*, *P. gessardii*, *P. lundensis* and *Shingobacterium multivorum*, and mesophiles such as *Aeromonas media*, *Candida inconspicua*, *Corynebacterium casei*, *Enterococcus faecalis*, *Hafnia alvei*, *Kocuria kristinae*, *K. rhizophila*, *Kytococcus sedentarius*, *Lactococcus lactis*, *Micrococcus luteus* and *Raoultella ornithinolytica*. During storage the raw cow milk, population of psychrotrophics and mesophiles was increase more than three times. Moreover, during the storage, some of these microorganisms such as *A. johnsonii*, *C. braakii*, *K. rhizophila*, *P. fragi*, *P. gessardii*, *P. lundensis* and *R. ornithinolytica* produced proteases and lipases which can survive more than 30 minutes at 70 °C (Pukančíková et al., 2016). Therefore, the elimination of these microorganisms from raw cow milk is necessary step before the storage.

For elimination of raw cow natural microflora, some methods can be used. The most popular is pasteurization. Therefore, we tested the effect of conventionally used temperatures for pasteurization on the survival of microorganisms in raw cow milk. Fig. 1 presents the count of total colony forming units (CFU) of cow milk treated by pasteurization at 73 °C during 30 seconds.

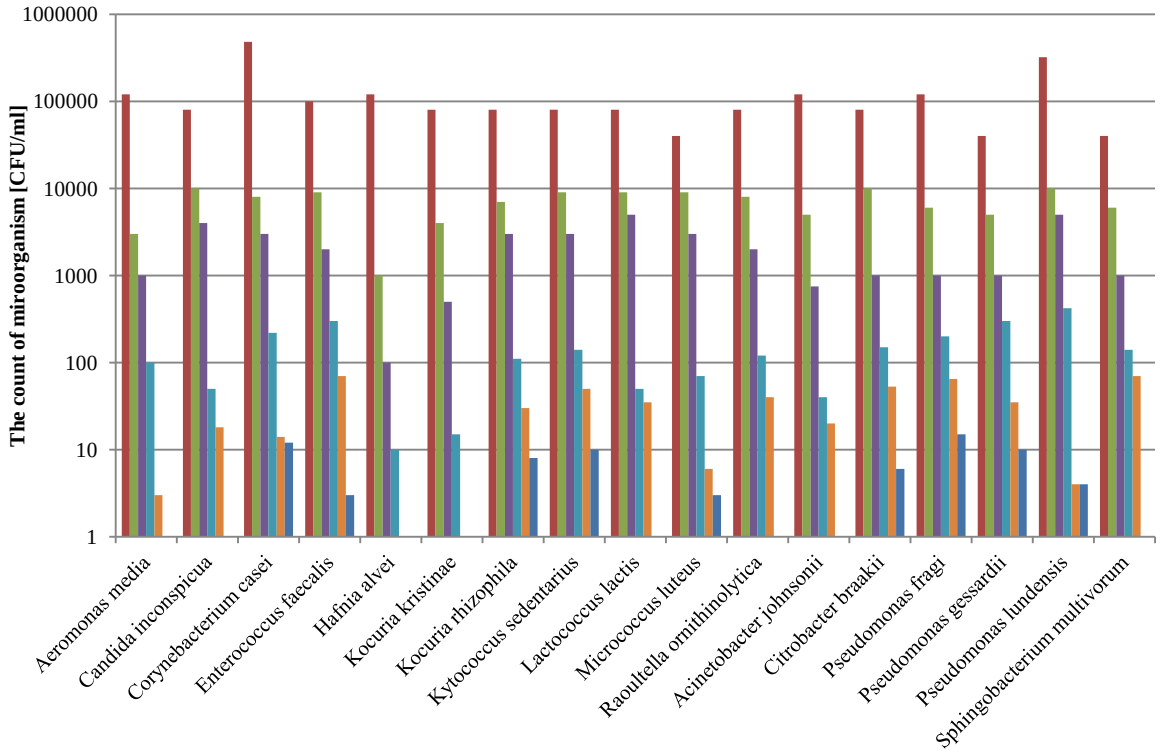


Figure 1: The effect of raw cow milk pasteurization at 73 °C during 30 seconds on the count of culture forming units per mililiter (CFU/ml); ■ before pasteurization, ■ after 5 seconds, ■ after 10 seconds, ■ after 15 seconds, ■ after 20 seconds, ■ after 30 seconds.

The mild pasteurization used for this experiment was not satisfactorily effective for the elimination of present microorganisms because the pasteurization conditions survive some bacterial species such as *Corynebacterium casei, Enterococcus faecalis, Kocuria rhizophila, Kytococcus sedentarius, Micrococcus luteus, Citrobacter braakii, Pseudomonas fragi, Pseudomonas Gessardii and Pseudomonas lundensis* (Fig. 1). The highest number of CFU after the mild pasteurization was measured for *Pseudomonas fraga*. Vithanage et al. (2016) found that the process of pasteurization can survive the endospores of *Bacillus*, *Paenibacillus* and vegetative cells of *Microbacterium*, *Enterococcus* and *Micrococcus*. Similarly, Zubeir et al. (2008) found that 2.2 % of *Enterococcus faecalis* can survive the process of pasteurization. On the other hand, Yadav et al. (2014) tested heat treatment of milk on the pathogens of *Escherichia coli*, *Salmonella typhi*, and *Staphylococcus aureus* and their ability to survive. They found that all tested bacteria were efficiently removed by this method. This can be explained by the ability of some strains to form biofilms which reduce the efficiency of thermal treatment for elimination of bacterial contamination (Kafil et al., 2015).

3.2 The ability of biofilm formation

The biofilms differ in the composition and the distribution of extracellular polymeric substances in aerobic and anaerobic zones, but also in the composition of microorganisms. Individual bacteria forming microcolonies are the basic biofilm unit. The bacterial aggregates as well as the biofilm itself may consist of one or more kinds of microorganisms. Dissolved organic substances on the surface allow the adhesion of bacteria. The biofilm is cured by water channels that can receive all the nutrients and oxygen they need for their growth and reproduction. The transition from the planktonic form to life in biofilm is conditioned by a number of environmental factors, nutrient concentration, osmolality, pH, and temperature (Davey et al., 2000).

The ability of biofilm production was analyzed according to Teh et al. (2011). This method is based on the assessment of CFU count of selected microbial strain on the stainless steel particles during 48 hours of cultivation at 6 °C (standard storage temperature) and 20 °C (for the comparison) after distilled water washing which can eliminate all non-adsorbed cells. The count of CFU measured after mechanical release of these microorganisms from the stainless steel particles is the rate of biofilm formation. The result of this experiment is presented in the Table 1.

Table 1: The ability of biofilm production by selected bacteria during 48 hours of cultivation at 6 °C and 20 °C.

Microorganism		**Cultivation at 6 °C**	**Cultivation at 20 °C**
		Count [CFU/ml]	Count [CFU/ml]
Mezophiles	*Aeromonas media*	4000	**780000**
	Corynebacterium casei	1000	15600
	Enterococcus faecalis	5000	15600
	Hafnia alvei	500	23400
	Kocuria kristinae	650	1600
	Kocuria rhizophila	1300	**208000**
	Kytococcus sedentarius	12000	140000
	Lactococcus lactis	1300	130000
	Micrococcus luteus	20000	91000
	Raoultella ornithinolytica	6000	13000
Psychrotropics	*Acinetobacter johnsonii*	5000	**130000**
	Citrobacter braakii	2000	13000
	Pseudomonas fragi	**40000**	26000
	Pseudomonas gessardii	**30000**	**260000**
	Pseudomonas lundensis	**50000**	**1200000**
	Sphingobacterium multivorum	2000	140000

Many microorganisms isolated from milk can form biofilms (Table 1); however, the rate of this biofilm production is variable. Therefore, the relationship between the count of microorganisms after pasteurization at 73 °C with two different time periods (20 and 30 seconds, respectively) and the count of microorganisms able to form biofilm was analyzed. The results are presented in the Fig. 2.

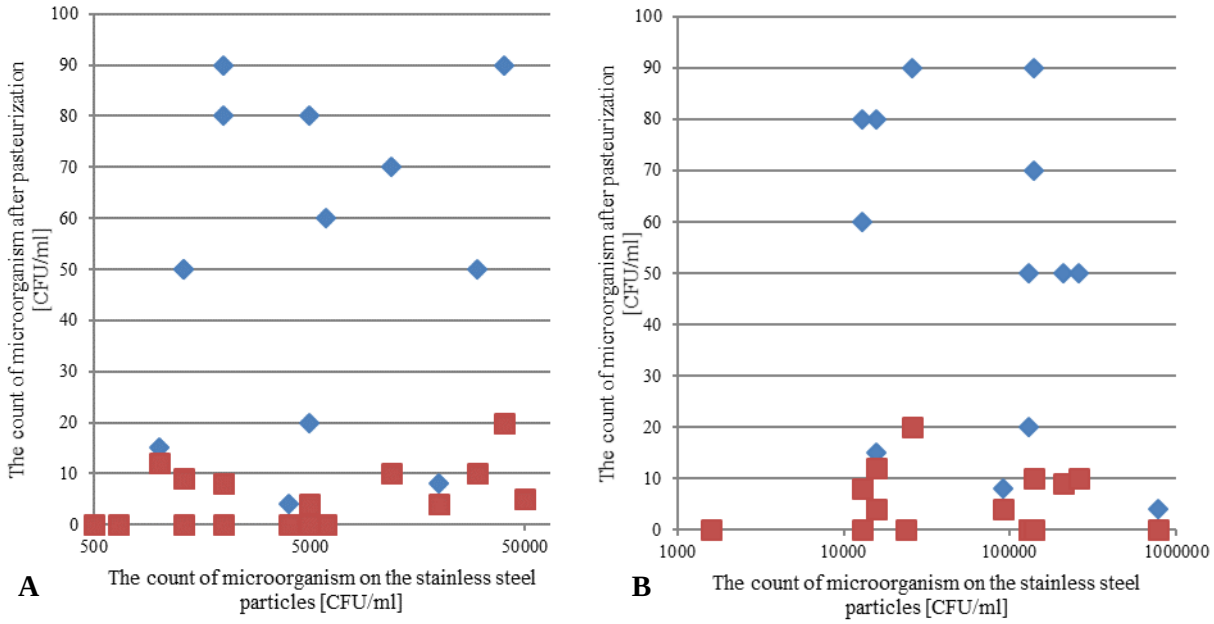


Figure 2: The dependence of the microorganism count survived pasteurization at 73°C for two different time periods and the microorganism count formed biofilm on the stainless steel particle surface during the cultivation at 6 °C (A) and 20 °C (B); ■ – the microorganism count survived pasteurization at 73 °C for 20 seconds; ♦ - the microorganism count survived pasteurization at 73 °C for 30 seconds.

3.3 The antibacterial effect of bacteriocins from *Lactobacillus lactis*

The antibacterial effect of bacteriocins from *L. lactis* was detected by transparent zones seen around milk isolates. The lactic acid bacteria *L. lactis* was chosen for the ability of broad-spectrum active bacteriocins production. The results are shown in Fig. 3.

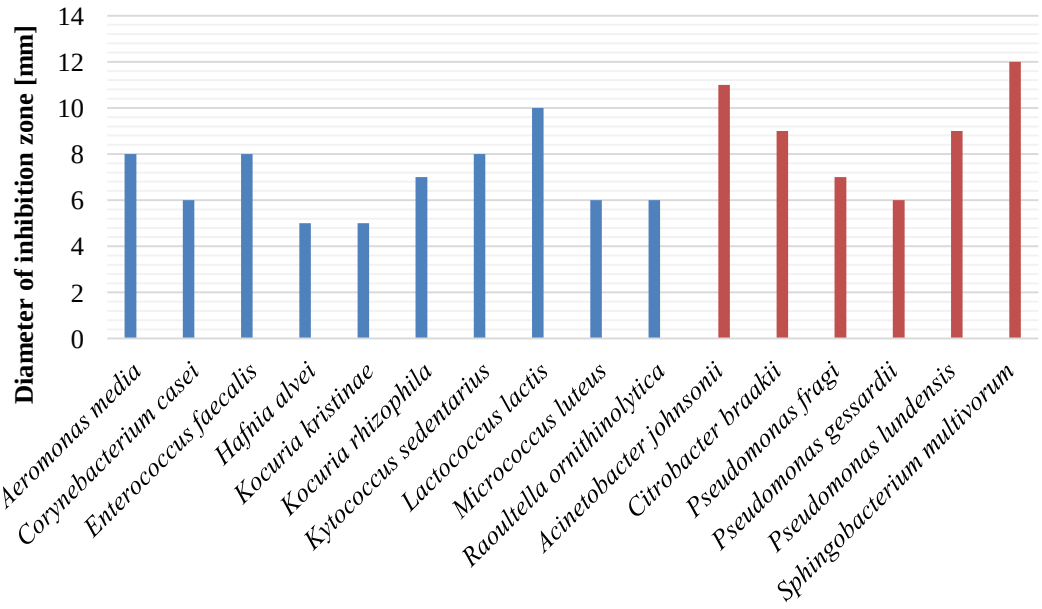


Figure 3: Determination of inhibition activity of bacteriocins produced by *Lactococcus lactis* against mesophilic (blue) and psychrotrohic (red) microorganisms after cultivation at 30 °C for 72 hours.

Previous studies have shown that bacteriocins produced by lactic acid bacteria are able to inhibit the growth of gram-positive bacteria but they do not affect the growth of gram-negative bacteria. It is estimated that the cell wall composition can be responsible for these results. The gram-negative bacterial cell wall contains a lipopolysaccharide, which makes the cell more resistant to the bacteriocins producing by the genus *Lactobacillus*. However, the results shown in Fig. 3 suggested that gram-negative as well as gram-positive bacteria were inhibited by the bacteriocins produced by *L. lactis*.

Similar to our work, Mankai et al. (2009) used the same bacteriocin-producing *L. lactis*. This lactic acid bacteria produce mixture of different bacteriocins. The effect of *L. lactis* subsp. *lactis* to inhibition of isolated cultures from milk was detected by the same method to ours (the size of the transparent zones) indicating the effectiveness of the antimicrobial activity. The average of inhibition zones against gram-negative bacteria *Aeromonascaviae*, *Pseudomonas fluorescens*, *P. putida*, *P. cepacia*, and *Chryseomonas luteola* varied between 8-15 mm (Mankai et al., 2009). Souid et al. (2015) also studied the growth inhibition of the milk isolate *Pseudomonas fluorescens* by the microorganism *L. lactis* ssp. *lactis*. The diameter of the inhibition zone varied from 9 to 18 mm. We detected the growth inhibition of all gram-positive and gram-negative mesophilic and psychotropic microorganisms after cultivation of antimicrobial producer. These microorganisms can negatively affect the technological properties of cow's milk. The diameter of the inhibition zone at the genus *Pseudomonas* ranged from 6 to 9 mm (Fig. 3). We also found that the bacteriocin-producing *L. lactis* was able to inhibit the growth of same species of *L. lactis* from raw cow's milk.

The species with the potential to produce antimicrobial compounds should also be resistant to these bacteriocins. On the other hand, Sanlibab et al. (2009) found that the immunity of the bacteriocin producers is not widespread against all bacteriocins. Key factor of the bacteriocin resistance is the presence of enzymes that are involved in the biosynthesis of selected bacteriocin. The bacteriocin resistance can be different within different strains of the same species. For example, strain *L. lactis* subsp. *lactis* SIK83 produces nisin, however, *L. lactis* subsp. *lactis* IL1403 is sensitive to nisin (Sanlibaba et al., 2009).

In study of Daba et al. (2015), microbial isolates of lactic acid bacteria (*Pediococcus acidilactici*, *P. pentosaceus*, *Streptococcus thermophilus*, *Lactococcus plantarum*, and *Lactobacillus* sp.) from different locations in northern Algeria were used for the production of new bacteriocins. These bacteria showed antimicrobial activity against some tested strains, especially gram-negative bacteria such as the *Pseudomonas* genus. These results are similar to our findings (Fig. 3). However, produced bacteriocins did not active against *Lactobacillus casei* subsp. *Rhamnosus, Proteus mirabilis*, *Listeria*, *Staphylococcus* and *Bacillus* (Daba et al., 2015), but these microorganisms were not present in our milk samples. On the other hand, Gaamouche et al. (2014) isolated lactic acid bacteria from olives which can produce bacteriocins effective against *Listeria* sp., *E. coli* and some *Enterococcus* strains.

4 CONCLUSION

Studied physical method of raw cow milk pretreatment was pasteurization which is routinely used method in dairy industry as the first step of the milk processing. Our results suggested that amount of microorganisms of raw cow milk can survive the thermal treatment at 73 °C for 30 seconds. Studied biological method of raw cow milk pretreatment was tested bacteriocins produced by *Lactococcus lactis* as potential inhibitors of microbial growth. Tested bacterial strain can effective eliminated all of bacterial strains present in raw cow milk. The exception was only yeasts.

Acknowledgement

This work was supported by grand of FPPV-17-2017.

Sources

1. BOOTH, S. J., JOHNSON, J. L., WILKINS, T. D. 1977. Bacteriocin production by strain of bacteroides isolated from human feces and the role of these strains in the bacterial ecology of the colon. In *Antimicrobial Agents and Chemotherapy*. ISSN 0066-4804, 1977, 11, pp. 718-724.
2. BYLUND, G. 2003. Dairy processing handbook, Tetra Pak Processing Systems AB, Lund, Sweden, ISBN 978-9163-134272, 2003, 442 p.
3. DABA, H. et al. 2015. Detection of bacteriocin-producing lactic acid bacteria from milk in various farms in north-east Algeria by a new procedure. In *Agronomy Research*. ISSN 1993-6060, 13, 4, pp. 907-918.
4. DAVEY, M. E. - O´TOOLE G. A. 2000. Microbial biofilms: from ecology to molecular genetics. In *Microbiology and Molecular Biology Reviews*. ISSN 1092-2172, 64, 4, pp. 847-867.
5. GAAMOUCHE, S. et al. 2014. Antimicrobial activity of lactic acid bacteria and bacteriocins isolated from a traditional brine table olive against pathogenic bacteria. In *International Journal of Current Microbiology and Applied Sciences*. ISSN 2319-7692, 3, 11, pp. 657-666.
6. KAFIL, H. S. et al. 2015. Assessment of biofilm formation by enterococci isolates from urinary tract infections with different virulence profiles. In *Journal of King Saud University*. ISSN 1018-3647, 27, 4, pp. 312-317.
7. MANKAÏ, M. et al. 2009. Study of antibacterial activity of *Lactococcus lactis* against spoilage psychrotrophic bacteria isolated from refrigerated raw milk. In *Journal of Culture Collections*. ISSN 1310-8360, 6, 2, pp. 42-51.
8. PUKANČÍKOVÁ, L. et al. 2016. Natural microflora of raw cow milk and their enzymatic spoilage potential. In *Nova Biotechnologica et Chimica*. ISSN 1338-6905, 15-2, pp. 142-155.
9. ŞANLIBABA, P. et al. 2009. Identification and characterisation of antimicrobial activity of nisin a produced by *Lactococcus lactis* subsp. *lactis* LL27. In *Czech Journal of Food Sciences*. ISSN 1805-9317, 27, 1, pp. 55-64.
10. SOUID, W. 2015. Potential use of the nisin produced by lactic acid bacteria for longer conservation of Camel cheese. In *Emirates Journal of Food and Agriculture*. ISSN 1097-0010, 27, 10, pp. 784-789.
11. TEH, K. H. et al. 2011. Thermo-resistant enzyme producing bacteria isolated from thein ternal surfaces of raw milk tankers. In *International Dairy Journal*. ISSN 0958-6946, 21, 10, pp. 217-747.
12. VITHANAGE, N. R. et al. 2016. Biodiversity of culturable psychrotrophic microbiota in raw milk attributable to refrigeration conditions, seasonality and their spoilage potential. In *International Dairy Journal*. ISSN 0958-6946, 57, pp. 80-90.
13. YADAV, M. K. et al. 2014. Sinefungin, a natural nucleoside analogue of s-adenosylmethionine, inhibits *Streptococcus pneumonia* biofilm growth. In *BioMed Research International*. ISSN 2314-6133, 2014, Article no. 156987.
14. ZUBEIR, E. M. 2008. Comparison of chemical composition and microbial profile of raw and pasteurized milk of the western cape, South Africa. In *International Journal of Dairy Science*. ISSN 0958-6946, 34, č. 3, pp. 137-143.

Contact

Mgr. Lucia Pukančíková
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321, email: luciapuk@gmail.com

RNDr. Daniela Chmelová, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321, email: daniela.chmelova@ucm.sk

Doc. RNDr. Miroslav Ondrejovič, PhD.
University of SS. Cyril and Methodius, Faculty of Natural Sciences
Nám. J. Herdu 2, 917 01 Trnava
Tel: +421 33 5565 321, email: miroslav.ondrejovic@ucm.sk

PREVENCIA INFEKCII KRVNÉHO RIEČISKA U HOSPITALIZOVANÝCH PACIENTOV

PREVENTION OF BLOODSTREAM INFECTIONS IN HOSPITALIZED PATIENTS

Lívia Hadašová, Iveta Ondriová, Anna Eliášová, Terézia Fertaľová, Jana Cuperová, Jana Cínová

Abstrakt

V prevencii infekcií krvného riečiska zohráva najvýznamnejšiu úlohu hygiena rúk zdravotníckych pracovníkov, dodržiavanie štandardných ošetrovateľských postupov pri zavádzaní, ošetrovaní intravenóznej kanyly a sústavné vzdelávanie zdravotníckych pracovníkov v uvedenej problematike. Cieľom prieskumu bolo prostredníctvom neštandardizovaného dotazníka zistiť úroveň vedomostí sestier v oblasti prevencie infekcie krvného riečiska a zistiť aké používajú sestry praktické ošetrovateľské postupy pri zavádzaní a ošetrovaní intravenóznych vstupov. Výsledky prieskumu poukázali na rezervy vo vedomostiach a zručnostiach sestier týkajúcich sa katétrových infekcií krvného riečiska a ošetrovania i.v. vstupov. Vzdelávanie sestier v uvedenej problematike môže výskyt katétrových infekcii krvného riečiska redukovať až o 30%. Nevyhnutnou súčasťou prevencie infekcie krvného riečiska je aj pravidelná realizácia auditov ošetrovateľských výkonov s cieľom identifikovať chyby a definovať nápravne a preventívne opatrenia v procese poskytovania ošetrovateľskej starostlivosti.

Kľúčová slová: *Infekcia krvného riečiska. Prevencia. Vedomosti a zručnosti sestier. Vzdelávanie*

Abstract

In the prevention of blood catether infections, the most important role is played by the hygiene of the healthcare workers' hands, compliance with standard nursing procedures for insertion, treatment of the intravenous catethers, and ongoing training of healthcare workers in the subject. The goal of the survey was to determine the level of nursing knowledge in prevention of infection of the blood stream through a non-standardized questionnaire and to find out what nurses used for nursing practice in introducing and treating intravenous infusions. The results of the survey highlighted reservations in the knowledge and skills of nurses regarding catheter infections of the bloodstream and the treatment of intravenosus inputs. Education of nurses in this issue can reduce the incidence of catheter infections in the bloodstream by up to 30%. An indispensable part of blood flow infection prevention is the regular implementation of nursing performance audits to identify mistakes and define remedial and preventive measures in the nursing care process.

Keys words: *Blood catether infections. Prevention. Knowledge and skills of nurses. Education*

1 INFEKCIE KRVNÉHO RIEČISKA

Infekcie krvného riečiska sú príčinnou predĺženia hospitalizácie v zdravotníckom zariadení, vo vysokej miere sa podieľajú na zvýšenej chorobnosti, úmrtnosti a invalidizácii pacientov.

1.1 Etiológia katétrovej infekcie krvného riečiska

Proces vzniku krvných katétrových infekcií je multifaktoriálný. Za najčastejšiu príčinu sa považuje prechod mikroorganizmov z kože v mieste inzercie intravenóznej kanyly (i.v.) s následnou kontamináciou špičky kanyly zavedenej priamo v krvnom obehu. Predpokladanou patogenézou vzniku katétrových infekcií krvného riečiska je kolonizácia intravenoznej kanyly mikroorganizmami. Tie sa najčastejšie zachytávajú v defektoch materiálov, kde vytvárajú mikrokolónie a následne tvoria biofilm, z ktorého sa uvoľňujú bunky pôvodcov do krvného riečiska. K vzniku infekcie môže dôjsť intraluminálnou kolonizáciou teda vstupom infúznej súpravy alebo v mieste zavedenia centrálneho žilového katétra teda extraluminálne (Bartunek a kol. 2016). Intravenózne katétre môžu byť kontaminované baktériami, ktoré sú prítomné na koži pacienta alebo na rukách ošetrujúceho personálu. Veľmi významným faktorom pri vzniku katétrovej infekcie krvného riečiska je správne vykonávaná hygienická dezinfekcia rúk zdravotnického personálu pri:

- zavádzaní periférnej venóznej kanyly,
- pri výmene sterilného krytia,
- pri aplikácií infúzií liekov do systému,
- pri uzatváraní periférnej venóznej kanyly,
- pri extrakcii venóznej kanyly.

K ďalším podstatným faktorom, ktoré prispievajú ku kontaminácii i.v. kanyly sú nesprávne techniky zavádzania i.v. kanyly, nesprávne krytie i.v. kanyly, nesprávna manipulácia s už zavedenou i.v. kanylou. Vznik infekcie krvného riečiska závisí aj od faktorov ako expozičná doba katétra a infúznej súpravy, miesto zavedenia, lúmen žily, zloženie aplikovaného roztoku (nutričné roztoky, krvné deriváty). Najdôležitejším faktorom je dĺžka zavedenia žilového katétra. Riziko vzniku tromboflebitídy a bakteriálna kolonizácia katétrov stúpa ako náhle je periférna i.v. kanyla ponechaná na mieste inzercie dlhšie ako 72 hodín. Z tohto dôvodu by mal byť tento druh katétrov vymieňaný v 72 hodinových intervaloch. Závery kontrolovaných štúdií odporúčajú rutinné výmeny infúznych súprav minimálne každých 72 hodín. Niektoré druhy tekutých biologických materiálov, napríklad krv, krvné preparáty a lipidové emulzie sú v porovnaní s inými parenterálne podávanými tekutinami vhodnejším prostredím pre mikrobiálny rast. Preto je nutná častejšia výmena infúznych súprav používaných na ich aplikáciu. Ďalšou možnou príčinou infekcie krvného riečiska je podanie kontaminovaných infúznych roztokov (Maďar, Podstatová, 2006).

1.2 Klinický obraz katétrovej infekcie krvného riečiska

Klinickými prejavmi katétrovej infekcie krvného riečiska je lokálne začervenanie, bolesť, absces až tvorba hnisového ložiska. K najzávažnejším komplikáciám kedy dochádza k diseminácii do krvného obehu je sepsa, až septický šok, endokarditída, septická tromboflebitída (Bartunek a kol.2016). K posúdeniu externých znakov flebitídy ako katétrovej infekcie krvného riečiska slúži Madonová hodnotiaca škála. Intenzita výskytu infekcie závisí aj od hospitalizácie pacienta na jednotlivých oddeleniach. Incidencia výskytu v intenzívnej starostlivosti sa pohybuje medzi 10 – 50%, čo je 5- 10x vyšší ako na štandardných oddeleniach (Maďar 2006). Komplikáciou intravenózneho vstupu môže byť infekcia krvného riečiska, hematómy, flebitídy, endokarditídy až sepsy. Uvedené komplikácie infekcie predlžujú hospitalizáciu pacienta a zvyšujú náklady za ďalšiu antibiotickú liečbu (Šrámová, 2013).

1.3 Determinanty katétrových infekcií

Dôležitými determinantmi katétrových infekcií sú aj vlastnosti mikroorganizmov a materiál, z ktorého sú katétre vyrobené. Štúdie ukázali, že katétre z polyvinylchloridu a polyetylénu majú nižšiu rezistenciu v porovnaní s teflónovými, silikónovými a polyuretánovými (Charvát

a kol.2016). Flebitída je najčastejšou komplikáciou spojenou s periférnou venóznou kanyláciou, ktorá môže vznikať na mechanickom, fyzikálno – chemickom podklade alebo na základe infekčnej príčiny. Centrum pre kontrolu a prevenciu ochorení - CDC uvádza faktory, ktoré ovplyvňujú vznik flebitídy u pacientov s periférnou venóznou kanyláciou. K najčastejším patrí:

- veľkosť kanyly,
- lokalizácia kanyly,
- materiál, z ktorého je kanyla vyrobená,
- praktické skúsenosti sestry,
- dĺžka trvania katetrizácie,
- zloženie aplikovaného infúzneho roztoku,
- frekvencia výmeny ochranného obväzového materiálu,
- príprava kože pred inzerciou katétra.

K faktorom ovplyvňujúcim vznik katétrovej infekcie krvného riečiska patrí miesto zavedenia intravenóznej kanyly, ktoré je ovplyvnené faktormi ako je výber hornej alebo dolnej končatiny, typ a veľkosť intravenózneho katétra, dodržanie aseptických princípov počas zavádzania a ošetrovania i.v. vstupu. Riziko vzniku flebitídy pri inzercií periférneho venózneho katétra na dolných končatinách je vyššie ako pri jeho aplikácií do niektorých žíl horných končatín. Teflónové a polyuretánové kanyly sú spojené s menším rizikom infekcie a mechanických komplikácií ako katétre polyetylénové alebo polyvinylchloridové. Výmena intravenóznej kanyly je nutná v intervale 48 až 72 hodín ako aj výmena infúznej súpravy. Výnimkou je urgentne zavedená intravenózna kanyla v prednemocničnej zdravotnej starostlivosti, kde je nutná výmena do 24 hodín. Výmena krycieho materiálu je nutná pri zmene miesta zavedenia venoznej kanyly alebo pri príznakoch uvoľnenia alebo kontaminácie biologickým materiálom. Kritériom štandardu zavádzania intravenóznej kanyly patrí označenie krytia kanyly dátumom dňa zavedenia (Maďar, Podstatová, 2011). Výskyt zápalu žíl ovplyvňujú faktory jako vek, pohlavie, základné diagnózy a prítomné infekcie v organizme. K ďalším faktorom patrí: príprava miesta vpichu, frekvencia podávania liečiv, osmolarita a dávka lieku, používanie filtrov, počet vstupov do systému (Catnay a kol.2001).

1.4 Prevencia katétrovej infekcie krvného riečiska

Dodržiavanie zásad hygieny a dezinfekcie rúk ako i štandardných postupov pri zavádzaní a ošetrovaní i.v. vstupov je základným preventabilným opatrením pred vznikom infekcie krvného riečiska (Fertaľová, Cibríková, Cuperová, 2017). Existuje bezprostredná súvislosť medzi vedomosťami a zručnosťami sestier, ktoré súvisia so zavádzaním a ošetrovaním i.v. kanyly a mierou výskytu infekcie. Zavádzanie a ošetrovanie intravaskulárnych katétrov menej skúsenými zdravotníckymi pracovníkmi je spojené so zvýšeným rizikom kolonizácie i.v. kanýl a vznikom krvných katétrových infekcií. Niektoré zdravotnícke zariadenia pristúpili k vytvoreniu špecializovaných tímov na zavádzanie, ošetrovanie intravenózních kanýl a podávanie intravenózne terapie. Špeciálne školené tímy s dostatočnými skúsenosťami so zavádzaním a ošetrovaním kanýl, môžu prispieť k zníženiu incidencie katétrových infekcií a s nimi spojených dodatočných finančných nákladov (Bartunek a kol.,2016). Ďalšími vhodnými metódami prevencie, sú správny výber miesta zavedenia kanyly, druh materiálu, z ktorého je kanyla vyrobená, používanie bariérovej ochrany pri aplikácií katétra, výmena kanýl, infúznych súprav a intravenóznych tekutín v odporúčaných intervaloch, správna starostlivosť o miesto vpichu kanýl, profylaktické používanie antimikrobiálnych látok, či využitie nových intravaskulárnych katétrov (Charvát a kol.2016). Systémová aplikácia antimikrobiálnych látok súčasne so zavádzaním, prípadne krátko po zavedení i.v. kanýl, môže mať priaznivý efekt na redukciu incidencie katétrových infekcií krvného obehu u rizikových pacientov. Vzhľadom k možnému vzniku rezistencie, alergickej reakcie alebo

nežiaducim účinkom sa však antibiotická profylaxia doporučuje iba vo zvlášť odôvodnených prípadoch (Šrámová, 2013). Zavedenie kanyly na operačných sálach sa dlho považovalo za faktor, ktorý znižuje pravdepodobnosť vzniku katétrovej infekcie. Ukázalo sa však, že prísne dodržiavanie bariérových ošetrovateľských techník pri zavádzaní kanýl je pre zabránenie vzniku katétrovej infekcie oveľa viac dôležitá než sterilita prostredia. Zavádzanie kanýl na oddeleniach priamo na lôžku pacienta pri dodržiavaní maximálnych bariérových ochranných opatrení (rukavice, masky, plášte) bolo spojené s nižším rizikom následných infekčných komplikácií, ako pri zavádzaní katétrov v sterilnom prostredí operačného sálu, avšak s nižším stupňom bariérovej ochrany (Maďar, Podstatová, 2012). Maximálne dodržiavanie ošetrovateľských bariér znižuje riziko vzniku sepsy, predovšetkým v prvých dňoch po výkone. Významným faktorom prevencie je aj správny výber antiseptických prípravkov k dezinfekcii pokožky v mieste inzercie i.v. kanyly.

Zásady prevencie katétrových infekcií podľa CDC

Periférne žilové katétre	
Náhrada a zmena miesta zavedenia kanyly	*Dospelí* – výmena katétra a zmena miesta zavedenia katétra každých 48 až 72 hodín. Výmena urgentne zavedených katétrov a zavedenie nového na iné miesto do 24 hodín- *Deti* – bez odporúčania.
Náhrada krycieho zdravotníckeho materiálu chrániaceho kanylu	Výmena krycieho materiálu a dezinfekcia miesta zavedenia katétra je raz za 48 hodín. Náhrada krycieho materiálu pri každej výmene a premiestnenie katétra, alebo je katéter uvoľnený, vlhký alebo kontaminovaný biologickým materiálom. U pacientov s klasickým krytím (gáza) znemožňujúcemu vizuálnu kontrolu, prípadne palpáciu, je potrebné odstrániť krytie a skontrolovať miesto katetrizácie aspoň jeden krát za deň.
Výmena infúznych súprav	Výmena súprav pre intravenóznu infúznu liečbu nie je bez klinickej indikácie potrebná častejšie ako raz za 72 hodín. Súpravy určené k podávaní krvi, krvných preparátov a lipidových emulzií je potrebné vymeniť po 24 hodinách.
Odporučená doba zavedenia parenterálnych roztokov v infúznych súpravách	Ukončiť infúziu lipidových parenterálnych tekutí, prípadne zmiešaných roztokov obsahujúcich lipidy do 24 hodín od umiestnenia na stojan. V prípade podávania lipidových emulzií samostatne, ukončiť infúziu do 12 hodín od zavesenia.

2 VÝSLEDKY PRIESKUMU

Hlavným cieľom prieskumu bolo zistiť, aké sú vedomosti sestier v problematike prevencie katétrových infekcií krvného riečiska a aké sú používané praktické postupy sestier pri zavádzaní a ošetrovaní invazívnych cievnych vstupov. Ďalším cieľom prieskumu bolo identifikovať chyby v procese zavádzania, ošetrovania intravenóznych vstupov, ktorých

dôsledkom je vznik katétrových infekcií krvného riečiska a zistiť záujem o kontinuálne vzdelávanie sestier v problematike prevencie katétrovej infekcií krvného riečiska.

2.1 Metodika a organizácia prieskumu

Za hlavnú metódu prieskumu sme si zvolili neštandardizovaný dotazník Prieskumu sa zúčastnilo 128 sestier pracujúcich v ústavnych zdravotníckych zariadeniach v Prešovskom samosprávnom kraji. Priemerný vek respondentov bol 44 rokov. Priemerná dĺžka praxe sestier bola 21 rokov, najväčšie zastúpenie sestier - 52% bolo so stredoškolským vzdelaním.

2.2 Výsledky prieskumu

Zisťovali sme, aké sú vedomostí sestier v oblasti prevencie katétrových infekcií krvného riečiska. Zisťovali sme, či sestry poznajú príčiny vzniku nozokomiálnych nákaz a správnu definíciu infekcie krvného riečiska. Z vyhodnotenia odpovedí na uvedené otázky vyplynulo, že 62% respondentov považuje za najčastejšiu príčinu infekcií krvného riečiska nedodržiavanie štandardov pri zavádzaní a ošetrovaní i.v. vstupov a kontamináciu rúk zdravotníckych pracovníkov. 61% respondentiek označilo ako najčastejší typ komplikácie intravenóznych vstupov infekciu v mieste inzercie intravenóznej kanyly. Zisťovali sme či sestry dodržiavajú ošetrovateľské štandardné postupy pri zavádzaní a ošetrovaní i.v. vstupov. 81% respondentov uviedlo, že používa jednorázové rukavice pri zavádzaní periférnej i.v. kanyly. Zaoberali sme sa identifikáciou chýb v procese zavádzania, ošetrovania i.v. vstupov, ktorých dôsledkom je vznik katétrových infekcií krvného riečiska. Zistili sme, že 91,2 % respondentov dodržiava stanovené časové obdobie zavedenia a odstraňovania i.v. kanyly. Zarážajúcim zistením bolo, že 80% respondentov nepoužíva Maddonnovú stupnicu pri hodnotení i.v. vstupov, čím sa nerešpektuje štandardný postup starostlivosti o intravenózny vstup. Zisťovali sme, či zdravotnícke zariadenia majú vytvorenú dokumentáciu na vedenie záznamu o ošetrovaní i.v.vstupov, 48% respondentov uviedlo, že na pracovisku majú vytvorenú dokumentáciu k evidencii ošetrovania i.v.vstupov, iba 43% respondentov uviedlo, že ošetrovanie i.v. vstupov zaznamenáva do ošetrovateľskej dokumentácie. Zistili sme, že 88% respondentov nevie aký typ kanyly používajú na oddelení a akú môže mať súvislosť typ používanej kanyly so vznikom infekcie krvného riečiska. Prostredníctvom prieskumu sme zisťovali či respondenti absolvovali preškolenie tykajúce sa hygieny rúk v zmysle prílohy novelizovanej vyhlášky Ministerstva zdravotníctva Slovenskej republiky 553/2007 Z.z., ktorá vstúpila do platnosti 15.júla 2015. 82 % respondentiek uviedlo, že bolo preškolených o legislatívnej úprave týkajúcej sa postupov v umývaní a dezinfekcií rúk zdravotníckych pracovníkov. Z uvedeného vyplýva, že zdravotnícke zariadenia nezanedbali povinnosť preškolenia v novelizovaných legislatívnych normách. Na otázku kedy používajú jednorázové rukavice v súvislosti so starostlivosťou o i.v vstupy, 81% respondentov uviedlo, že jednorázové rukavice používa pri zavádzaní i.v.kanyly, 31% respondentov uviedlo používanie sterilných rukavic pri ošetrovaní centrálného venózneho katétra, 12% respondentov používa rukavice pri podávaní intravenóznej terapie, iba 4% respondentov uviedlo, že rukavice používa pri rušení i.v.kanyly. Na otázku, kedy vykonávate dezinfekciu rúk, 32% respondentov uviedlo, že po každom hygienickom umytí rúk, 24% respondentov uviedlo dezinfekciu rúk pred každým kontaktom s pacientom, 15% respondentov označilo možnosť po kontakte s biologickým materiálom, len 27 % respondentov uviedlo možnosť pred každým ošetřovatelským výkonom vyžadujúcim aseptický prístup. Analýza odpovedí respondentov na uvedené položky poukazuje na rezervy v oblasti informovanosti legislatívnej normy týkajúcej sa hygieny rúk ako aj rezervy týkajúce sa štandardných postupov pri ošetrovateľských výkonech vyžadujúcich aseptický prístup. Zisťovali záujem o kontinuálne vzdelávanie sestier v problematike prevencie katétrovej infekcií krvného riečiska. Zistili sme, že sestry najčastejšie získavajú informácie týkajúce sa problematiky prevencie katétrových

infekcií krvného riečiska z odborných sesterských seminárov a konferencií. 52% respondentov ďalej uviedlo, že sa seminárov zúčastňujú vždy, ak takúto možnosť majú. Zistili sme, že 39% respondentov najčastejšie získava informácie o problematike nemocničných infekcií z odborných sesterských seminároch a konferencií a 37% respondentov uviedlo, že na získanie informácii o prevencii vzniku katétrových infekcií využíva odbornú literatúru. Aj napriek tomu, že sa sestry zúčastňujú odborných seminároch negatívnym zistením bolo, že nie všetky sestry poznajú definíciu infekcie krvného riečiska ako aj, že sestry nemajú dostatočné vedomosti o komplikáciách i.v. vstupov. Uvedené nedostatky môžu podporovať vznik a nárast infekcií krvného riečiska. 76% sestier udáva, že sa na pracovisku sleduje a hlási každý výskyt i.v. katétrových infekcií.

2.3 Diskusia

Literárne zdroje uvádzajú, že približne 20-30% nozokomiálnych infekcií je preventabilných , možno im predchádzať intenzívnymi programami na prevenciu a kontrolu nozokomiálnych nákaz, ktorých významnou súčasťou je vzdelávanie zdravotníckych pracovníkov (Štastná 2005). Efektívnym program pre prevenciu možno ovplyvniť počet a závažnosť nozokomiálnych nákaz i finančné náklady. Červeňanová, Blažejová, (2011) uvádzajú, že skúsenosti z praxe poukazujú na nedostatočné vedomosti sestier v zásadách prevencie nemocničných infekcií, dezinfekcie, predsterilizačnej príprave a hygiene rúk. Kelčíková, Sakmárová (2011) realizovali štúdiu v ktorej zisťovali a porovnávali úroveň vedomostí, zručností a návykov sestier v problematike centrálnych venóznych katétrov vo vzťahu k rizikám infekcie na vybraných oddeleniach podľa odporúčaní CDC a procesuálnych štandardov. Výsledky uvedenej štúdie poukázali na skutočnosť, že sestry nedodržiavajú niektoré základné bariérové ošetrovateľské techniky a nemajú dostatočné vedomosti v ošetrovateľských postupoch, ktoré súvisia s rizikom a vznikom nozokomiálnych nákaz. Dodržiavanie preventívnych opatrení je povinnosťou všetkých zložiek zdravotníckeho personálu nielen sestier. Neznalosť či ignorancia metód preventívnych opatrení vedie k závažnému ohrozeniu zdravia a života pacienta, predĺženiu doby hospitalizácie ako aj výraznému zvýšeniu nákladov na liečbu (Boledičová et al 2011). Garabašová a kol.(2016) uvádzajú vykonané audity zamerané na ošetrovateľské postupy týkajúce sa starostlivosti o centrálne venózne kanyly (CVK) poukázali na vysokú úroveň odoržania štandardných postupov pri zavádzaní CVK, zatiaľ čo v postinzerčnej starostlivosti boli zistené významné nedostatky ako neadekvátna deznfekcia konektorov kanyly, nízka compliance hygieny rúk u sestier pred ošetrovaním CVK. Nízka úroveň znalostí zdravotnických pracovníkov v oblasti štandardných postupov bola jednou z limitácii vykonávania správnych štandardných postupov v praxi. Po zavedení intrervencie v praxi „Care bundles“ sa úroveň vedomostí zdravotnického personálu zvýšila, čo predstavuje účinnú stratégiu na znižovanie výskytu katétrových infekcii krvného riečiska. Hadašová (2016) uvádza, že vzdelávanie sestier v oblasti prevencie nozokomiálnych nákaz môže byť v nemocnici koncipované vo forme edukačného programu, súčasťou ktorého sú odborné témy, kazuistiky pacientov s nozokomiálnou nákazou, prezentácie štandardných ošetrovateľských postupov vyžadujúcich aseptický prístup, novelizované právne predpisy, výsledky interných a externých kontrol na oddeleniach zameraných na hygienicko-epidemiologický režim a informácie z domácich a zahraničných štúdii riešiacich problematiku nozokomiálnych nákaz. Hudáková (2016) uvádza, na základe zrealizovaného prieskumu v oblasti *Postoja sestier k povinnosti sústavného vzdelávania* uvádza, že sestry sa pravidelne zúčastňujú v rámci svojho pracoviska na odborných seminároch. Pozitívnym zistením prieskumu bolo, že sestry majú záujem sa sústavne vzdelávať, naberať vedomosti a zručnosti, ktoré prinášajú zmeny v zdravotníctve a ošetrovateľstve či už v novej technike, ako aj zmeny v riadení ošetrovateľstva.

2.4 Návrhy a odporúčania pre prax

Na základe zistení z výsledkov prieskumu, navrhujeme s cieľom posilniť bezpečnosť pacientov a prevenciu vzniku nozokomiálnych infekcií krvného ručiska uvedené opatrenia pre klinickú ošetrovateľskú prax, ktoré prispejú k zvyšovaniu kvality ošetrovateľskej starostlivosti a k zvyšovaniu odbornej erudície sestier. Zodpovednosť za realizáciu uvedených návrhov a odporúčaní spadá v zdravotníckych zariadeniach do kompetencie námestníčky pre ošetrovateľstvo a vedúcich sestier :

- Vypracovať ošetrovateľské štandardy na zavedenie a ošetrovanie i.v vstupov.
- Preškoliť sestry a implementovať do praxe jednotnú formu záznamu hodnotenia i.v. vstupu prostredníctvom Madonnovej stupnice v zdravotnej dokumentácii pacienta.
- Pravidelne vykonávať k uvedenému štandardnému postupu plánované i neplánované ošetrovateľské audity, so záznamom nedostatkov, nápravných a preventívnych opatrení.
- V rámci sústavného vzdelávania organizovať v nemocnici semináre s problematikou prevencie nozokomiálnych infekcií.
- Informovať sestry o najnovších trendoch, poznatkoch a postupoch, ktoré vychádzajú z najnovších výskumov a evidence based practise v oblasti starostlivosti o i.v. vstupy, prevencie katétrovej infekcie krvného riečiška a ďalších skupín nozokomiálnych nákaz.
- Pravidelne, s frekvenciou minimálne 1x ročne sestry preškoľovať a rešpektovať v ošetrovateľskej praxi legislatívne požiadavky, týkajúce sa hygienicko-epidemiologického režimu oddelení, hygieny rúk, bezpečnosti pacienta a požiadaviek na prevádzku zdravotníckych zariadení z hľadiska ochrany zdravia.
- Aktívne spolupracovať v riešení problematiky prevencie nozokomiálnych infekcií krvného riečiska aj s Regionálnym úradom verejného zdravotníctva za účelom poskytnutia spätnej väzby pri nahlasovaní a vykonaných analýz jednotlivých prípadov pacientov i výsledkov vzoriek, ktoré boli odobraté z prostredia, od pacientov i rúk personálu za účelom potvrdenia účinnosti používaných dezinfekčných prostriedkov i používania princípov bariérovej ošetrovateľskej techniky.
- Problematika prevencie nozokomiálnych infekcií krvného riečiska má byť zadefinovaná v cieľoch kvality nemocnice a každého oddelenia, s príslušnými kritériami, intervenciami a pravidelným vyhodnocovaním.

3 ZÁVER

Prevencia katétrových infekcií krvného riečiska je závažným problémom v ošetrovateľskej praxi. Významným preventabilným faktorom je dodržiavanie štandardných ošetrovateľských postupov a pravidelné realizované ošetrovateľské audity s cieľom identifikovať chyby a definovať nápravné a preventívne opatrenia v procese poskytovania ošetrovateľskej starostlivosti. Riziko vzniku infekcie krvného riečiska klesá pri správnom umývaní a dezinfekcií rúk zdravotnického personálu. Nevyhnutnou súčasťou prevencie infekcii krvného riečiska je aj sústavné vzdelávanie sestier v oblasti nozokomiálnych nákaz a spätná väzba z hlásenia nemocničných nákaz v zdravotníckom zariadení s následným spracovaním kazuistík pacientov.

Použitá literatura

1. BARTUNEK, P., JURÁSKOVÁ D., HECZKOVÁ, J.,NALOS, D. *Vybrané kapitoly z intenzivní péče.* 1.vydanie. Praha:Grada Publishing.2016. 752 s. ISBN 978-80-247-4343-1
2. BOLEDOVIČOVÁ, M.,KRIŠTOFOVÁ,E., NÁDASKÁ, I. *Zásady bariérovej ošetrovacej techniky v prevencii nozokomiálnych nákaz pohľadom študentov*

*ošetrovateľstva.*In: Ošetřovatelství. (online) s.16(cit.27.11.20172011.ISSN 1804-7122.Dostupné z http://casopis-zsfju.zsf.jcu.cz/kontaktclanky/1-2011/243
3. CATNAY,M. et al.2001.*Relationship between peripheral intravenosus catheter dwell time and development of phlebithis and infiltration*. In Journal of Infusion Nursing;24:5,332-341.
4. ČERVEŇÁKOVÁ, E., BLAŽEJOVÁ, A. *Edukácia zdravotníckych pracovníkov v nových trendech hygienického režimu jako prevencia nozokomiálnych ochorení.* In.Nozokomiální nákazy.2011;10(3):14-23
5. FERTAĽOVÁ, T., CIBRIKOVÁ, S., CUPEROVÁ, J.*Klinická prax v chirurgických odboroch*. Prešovská univerzita v Prešove: A print.2017.107 s. ISBN 978-80-89721-23-8
6. GARBAŠOVÁ, M., BRŇOVÁ, J., STREHáROVÁ, A., ŠTEFKOVIČOVÁ , M., Súčasné stratégie prevencie katétrových infekcií krvného riečiska v praxi. In.Zddravotnícke listy, Ročník 4, číslo 1, 2016, ISSN 1339-3022
7. HADAŠOVÁ, L., FERTÁĽOVÁ, T., ONDRIOVÁ I. *Skúsenosti s realizáciou edukačního programu zameraného na prevenciu nozokomiálnych nákaz.* In Elektronický zborník X.medzinárodní sympózium ošetřovatelství.2016 Ošetrovateľský výzkum a praxe založená na důkazech. Ostrava : Ostravská univerzita v Ostravě.
8. HUDÁKOVÁ,D.,*Postoj sestier k povinnosti sústavného vzdelávania*. Prešovská iniverzita v Prešove. Diplomová práca.2016
9. CHARVÁT, J. a kol. *Žilní vstupy*. 1.vydania. Praha: Grada Publishing. 2016. 184 s. ISBN 978-80-247-5621-9
10. KELČÍKOVÁ, S., SAKMÁROVÁ, A. *Prevencia infekcie u pacienta s centrálnym venóznym katétrom*. Nozokomiální nákazy.20111;10(3):; (1)8-13
11. MAĎAR, R., Starostlivosť o i.v.vstupy. *Nozokomiálne nákazy* .2006.Dostupné na internete: http//www.lefa.sk/internet/nozokom/2006/2006-3
12. MAĎAR, R.,PODSTATOVÁ, R..,REHOŘOVÁ,J. 2011.*Prevence katétrových infekcí krvního řečiště.* In Nozokomiálne nákazy. ISSN 1336-3859.2011, roč.10, č.1/2011
13. MAĎAR, R., R. PODSTATOVÁ, 2012. *Nozokomiálne nákazy.* Roč.11, č. 1/2012,s.2.ISSN1336-3859.
14. ŠRÁMOVÁ, H., a kol. *Nozokomiální nákazy*.3 vydanie. Praha: Maxford. 2013. 400 s. ISBN 978-80-7345-286-5
15. ŠŤASTNÁ, E. *Sledovaní nozokomiálních nákaz jako vnitřní proces řízení kvality zdravotnícke péče v nemocnici Přerov*. Nozokomiálni nákazy.2005;(1):18-21

Príspevok vznikol s podporou Kultúrno edukačnej agentúry KEGA č.029PU-4/2017 s názvom „Inovácia predmetu Ošetrovateľské postupy I a II“ – vytvorenie modulového vzdelávacieho programu.

Kontaktní údaje
PhDr. Lívia Hadašová, Ph.D., MBA
Prešovská univerzita v Prešove, Fakulta zdravotníckych odborov
Partizánska 1, 080 01 Prešov
email: livia.hadasova@unipo.sk

VÝZNAM HYGIENY RÚK ZDRAVOTNÍCKYCH PRACOVNÍKOV V PREVENCII NOZOKOMIÁLNYCH NÁKAZ

THE IMPORTANT OF HAND HYGIENE FOR HEALTH WORKERS

Iveta Ondriová, Anna Eliašová, Terézia Fertaľová, Lívia Hadašová, Jana Cuperová

Abstrakt

Hygiena rúk zdravotníckych pracovníkov je kľúčovým faktorom v prevencii nozokomiálnych nákaz. Rukami zdravotníckych pracovníkov sa prenáša viac ako 60 % nozokomiálnych nákaz. Dezinfekcia rúk je súbor opatrení vedúcich k odstráneniu živých mikroorganizmov, ktoré sa nachádzajú na pokožke. Hlavným cieľom dezinfekcie je prerušiť cestu prenosu infekcie od prameňa pôvodcu nákazy k vnímavému organizmu.

Kľúčové slová: *hygiena rúk, prevencia, nozokomiálne nákazy*

Abstract

Hand hygiene of healthcare workers is a key factor in the prevention of nosocomial infections. Hands of healthcare workers to carry more than 60 % of nosocomial infections. Hand disinfection is the set of actions leading to the removal of live microorganisms That are found on the skin. The main objective of disinfection is discontinued path transmission of infection from the source of infection for susceptible organisms.

Key words: *hand hygiene, prevention, nosocomial infection*

1 HYGIENA RÚK

Nedostatočná hygiena rúk zdravotníkov spôsobuje viac ako 60 % nozokomiálnych infekcií. Pokožka rúk je tvorená stálou a prechodnou mikroflórou. Stála mikroflóra sa vyskytuje hlavne na povrchu a vo vnútorných vrstvách epidermidis. Pokiaľ nedôjde k narušeniu tejto mikroflóry vonkajšími faktormi, zloženie je stále rovnaké. Medzi kmene stálej mikroflóry patrí: Staphylococcus aureus, Staphylococcus epidermidis, hominis, haemolyticus, papillomaviry, herpesviry a iné. Prechodná flóra prežíva len určitú dobu a môžeme ju odstrániť dezinfekciou rúk. Tvoria ju hlavne nepatogénne, podmienene patogénne a patogénne organizmy (Streptococcus, Enterococcus, E.coli, Pseudomonas aeruginosaainé). Najčastejšie ju chorý získa kontaktom so zdravotníkom, alebo prostredníctvom predmetov. Hygiena rúk je základným kameňom prevencie infekcií spojených s poskytovaním zdravotnej starostlivosti. Ruky zdravotníkov sa podieľajú na väčšine diagnostických, terapeutických a ošetrovateľských výkonov. Uvádza sa, že u 20 – 40 % infekcií spojených so zdravotnou starostlivosťou sú ich pôvodcovia prenášaní rukami zdravotníckeho personálu.

Rovnakým spôsobom sa prenášajú kmene rezistentné na antibiotiká, ktoré u vnímavých pacientov vyvolávajú nebezpečné infekcie spojené s poskytovaním zdravotnej starostlivosti. Ruky zdravotníkov preto musia byť nielen viditeľne čisté ale aj mikrobiologicky bezpečné. Hygienou rúk sa rozumie dokonalé umývanie a dezinfekcia rúk. Pre zabezpečenie hygieny rúk je nevyhnutné, aby na rukách zdravotníckych pracovníkov neboli prstene, náramky. Nechty musia byť nenalakované a nakrátko ostrihané, použitie umelých nechtov je neprípustné. (Larson, et al,2008).

Povinnosťou zdravotníckeho pracovníka je mať nechty prirodzene upravené, krátke, čisté a ženy by nemali nosiť umelé alebo namaľované nechty. Nosenie šperkov, prsteňov, náramkov je zakázané pri všetkých činnostiach, kedy je poskytovaná priama starostlivosť o pacienta. Nesmú sa nosiť hodinky, pretože zabraňujú dobrej dezinfekcii priestoru pod nimi.
Rovnako tak aj prstene a umelé nechty sú často sídlom gramnegatívnych agrampozitívnych baktérií ambulantných priestoroch, na lôžkových oddeleniach, JIS-kách či na anestéziológii je možné nosiť iba drobné náušnice, či krátke retiazky, ktoré nepresahujú odev.
Táto podmienka sa musí dôsledne dodržiavať, pretože len také ruky možno dokonale umyť a dezinfikovať. Umývanie rúk sa považuje za najlacnejší a najjednoduchší spôsob ako zabrániť prenosu infekcie, zároveň vedie k výraznému znižovaniu množstva mikroorganizmov na rukách, môže viesť k redukcii chorobnosti a úmrtnosti pacientov v dôsledku nozokomiálnych nákaz. Je teda na každom zdravotníckom pracovníkovi, aby si zvyšoval vedomosti v problematike hygieny rúk a aby skvalitňoval výkon umývania a dezinfekcie rúk.

1.1 Mikroflóra

Ľudská koža je za bežných podmienok osídlená mikrobiálnou flórou. Jej zloženie a množstvo závisí od pohlavia, veku a zdravotného stavu. Osídlenie je najvyššie v blízkosti konca nechtov.

Mikroflóra, ktorá osídľuje pokožku sa nazýva:

- rezidentná – trvale osídľujúca, vyskytuje sa v hlbších vrstvách epidermis /vývody potných, mazových žliaz, okolie nechtov/.Rezidentné mikroorganizmy obvykle nie sú pôvodcami infekcií. Najčastejšie ju tvoria koaguláza negatívne stafylokoky /S. epidermidis, S. hominis, S.haemolyticus/ a koagulázu tvoriace kmene /S. aureus, sarcíny, Corynobacterium pseudodiphtericum.../ Rezidentné mikroorganizmy obvykle nie sú pôvodcami infekcií.
- tranzientná – prechodná, je odrazom prostredia a charakteru vykonávanej práce. Pokožka rúk zdravotníckeho personálu často obsahuje podmienene patogénne ale aj patogénne baktérie:

Streptococcuspyogenes, Str. agalactiae, Str. viridans, Str. faecalis, Str. faecium, Acinetobacter,Enterobacter spp., E. coli, Pseudomonas spp., Serratia marcescens, candida albicans A mykobaktérie. Laboratórne experimenty ukázali, že viabilita/schopnosť prežiť/ bakteriálneho kmeňa na koži pretrvala viac ako 150 minút – čo je dostatočne dlhý čas na prenos nákazy z pacienta na pacienta alebo z personálu na pacienta. Tomuto možno predísť správnym umývaním rúk s následnou dezinfekciou.
Bakteriálna flóra kože rúk sa rozdeľuje do troch skupín: trvalá flóra lokalizovaná v stratum corneum; prechodná flóra zložená z kožných kontaminantov na povrchu; infekčná flóra tvorená etiologickými pôvodcami rôznych infekcií, kožných lézií,vredov rúk a paronychií.
Trvalá bakteriálna flóra rúk sa skladá z množstva bakteriálnych species tvorených gram-pozitívnymi kokmi (Staph.epidermidis, Staph. hominis a Staph. captitis), Corynebacterium a Propionibacterium (P. acnes a P. granulosum). Staphylococcus aureus sa často vyskytuje u zdravotníckych pracovníkov. Na ich rukách sa tiež nachádzajú gramnegatívne mikroorganizmy, ako sú Acinetobacter spp. a Klebsiella spp. Trvalá flóra svojou prítomnosťou na koži zabraňuje osídleniu inou potenciálne patogénnou flórou. Pre svoju lokalizáciu je relatívne odolná voči účinku umývania rúk .
Prechodnú flóru tvoria kontaminujúce mikroorganizmy na najvrchnejších častiach kože, ktoré sú častými pôvodcami nemocničných infekcií. Na rozdiel od trvalej flóry je jednoducho odstrániteľná umývaním rúk (Juřeníková,2008).

Infekčnú flóru najčastejšie tvoria kmene Staphylococcus aureus a Streptococcus spp., ale nachádzame v nej aj iné patogény, ktorými boli ruky kontaminované pri kontakte s nemocničným prostredím.

2 ZÁSADY V STAROSTLIVOSTI O RUKY

Dôležitou súčasťou nemocnice je manažment nemocnice. On zodpovedá za dostatočné množstvo informácií, vhodné pracovné podmienky pre personál a umožňuje pracovníkom systematické vzdelávanie v oblasti hygieny rúk. Niektorí pracovníci nedodržiavajú správnu hygienu rúk a to z dôvodu nedostatku času, nedostatku personálu a zároveň veľkého počtu pacientov a tiež sa vyhovárajú na dezinfekčné prostriedky, ktoré vysušujú pokožku rúk.
V dnešnej dobe je však taká široká ponuka produktov, ktoré sú kvalitné a na stav pokožky rúk nemajú žiaden nepriaznivý vplyv. V každom prevádzkovom poriadku sú uvedené zásady osobnej hygieny zamestnancov pri ošetrovaní a vyšetrovaní chorých, konkrétne osobné ochranné pracovné pomôcky a spôsob umývania rúk a ich dezinfekcia. (Larson, et al,2008)

2.1 Bežné – mechanické umývanie rúk

Hlavnou úlohou je *mechanicky odstrániť viditeľné nečistoty* a *čiastočne prechodnú mikroflóru z pokožky rúk*, a to pomocou umývacích prostriedkov bez toho, aby poškodili stálu mikroflóru. Potrebujeme tekutý umývací prostriedok z dávkovača, tečúcu pitnú vodu a jednorazové utierky, ktoré musia byť umiestnené v krytom zásobníku. Nemali by sme ruky umývať v horúcej vode, pretože ak na rukách máme odery a poškodenia, mohlo by dôjsť k zbytočnému podráždeniu.
Postup pri mechanickom umývaní rúk

- zložiť prstene
- použiť teplú tečúcu vodu
- aplikovať cca 1ml tekutého mydla
- ruky umývať 30 sekúnd
- opláchnuť pod teplou tečúcou vodou
- osušiť jednorazovým uterákom

Bežné mechanické umývanie rúk sa vyžaduje

- keď sú ruky viditeľne znečistené
- pred manipuláciou s jedlom a liekmi
- predjedlom
- po použití toalety
- po kontakte s pacientom
- po zložení rukavíc

Hygienické umývanie rúk
Vykonáva sa za použitia dezinfekčného mydla a to predovšetkým:

- pri príprave a výdaji jedla
- pri výkone osobnej hygieny
- pri ošetrovaní infekčných pacientov

Postup hygienického umývania rúk

- do navlhčenej pokožky sa vtiera predpísané množstvo dezinfekčného mydla /2-3ml/ po dobu 30-60 sekúnd
- následne sa opláchne tečúcou teplou vodou
- osuší sa do jednorázového uteráka.(Hrubiško, 2003)

Jej cieľom je odstránenie nečistôt a odstránenie tranzientnej mikroflóry. Hygienické umývanie rúk je účinnejšie ako bežné umývanie rúk, ale menej účinné ako hygienická dezinfekcia rúk.

Redukuje isté množstvo prechodnej mikroflóry z pokožky a aplikuje sa u konkrétneho pacienta. Okrem pacienta dezinfikujeme aj prostredie, v ktorom sa nachádza –zábrany, stolček, stoličky, infúzny stojan, monitory atď. Potrebujeme alkoholový dezinfekčný prostriedok, dezinfekčný prostriedok v dávkovači s popisom prípravku, dátumom, kedy bol doplnený a dátumom exspirácie. Alkoholový dezinfekčný prostriedok (3 ml) vtierame do suchej pokožky asi 20 sekúnd a ruky by mali byť počas vtierania celý čas vlhké. Prípravok necháme zaschnúť a neoplachujeme vodou.
Dnes sa viac praktizuje hygienická dezinfekcia rúk, ako samotné umývanie rúk, pretože pokiaľ je dobre prevedená, je oveľa viac účinnejšia. Je však dôležité, aby sa používala kvalitná dezinfekcia rúk, ktorá nevyvoláva alergické reakcie a zanecháva pokožku hydratovanú. Veľkými chybami zdravotníkov je, že praktizujú súčasne aj umývanie rúk, aj hygienickú dezinfekciu rúk. Používajú látkové a nie jednorazové utierky a po použití dezinfekcie mávajú rukami, aby rýchlejšie uschli.(Al Kadi,Salati,2013)
Indikácie, kedy si umývať ruky, sú uvedené v „APIC Guideline for Hand Washing and Hand Antisepsis in Health-Care Settings“ a v „WHO Guidelines on Hand Hygiene in Health Care“ z r. 2009. Rozhodnutie, kedy a ako si umývať a dezinfikovať ruky, by malo závisieť od intenzity kontaktu s pacientom alebo kontaminovanými predmetmi, stupňa kontaminácie, ktorý je pravdepodobný pri danom kontakte, náchylnosti pacienta k infekcii, vykonaných procedúr. Boli vyvinuté schémy, ktoré určujú jednotlivé zdravotnícke výkony a pravdepodobnosť kontaminácie rúk pri ich vykonávaní. Tieto schémy a odporúčania majú pomôcť pri určovaní, kedy je indikované umývanie rúk.(Weinstein,1991)

2.2 Dezinfekcia rúk

Na dezinfekciu rúk je vhodná dezinfekčná látka, ktorá je popri dobrej antimikrobiálnej účinnosti minimálne agresívna voči koži a nemá nepríjemný zápach. Alkoholy, ako je etanol a izopropanol, tieto vlastnosti majú. Ich výhodou je rýchly antimikrobiálny účinok a jeho široké spektrum, zahŕňajúce väčšinu vegetatívnych foriem grampozitívnych i gramnegatívnych baktérií vrátane mykobaktérií. Výnimkou sú len bakteriálne spóry, odolné voči účinkom týchto alkoholov. Etanol má tiež široké spektrum účinku proti mykotickým organizmom vrátane kvasiniek a dermatofytov. Virucídny účinok v značnej miere závisí od použitej koncentrácie etanolu. Na neobalené vírusy má lepšiu účinnosť 95% etanol než etanol v koncentrácii 60 – 80 %.
Dosiaľ nebola popísaná bakteriálna rezistencia na etanol alebo izopropanol. Alkoholy patria medzi najbezpečnejšie antiseptiká, ktoré nemajú žiadny toxický účinok na ľudskú kožu. Po použití alkoholového dezinfekčného prostriedku na ruky nedochádza k významným zmenám hydratácie kože. Aj na podráždenú kožu majú alkoholy len minimálne dráždivý účinok. Ich opakované použitie na ruky však môže kožu vysušiť a iritovať. Tieto účinky na ruky obmedzí alebo ich eliminuje prídavok 1- až 3-percentného glycerolu ako aj iných podobných hydratačných látok do alkoholových dezinfekčných prípravkov.
Na odporučenie Svetovej zdravotníckej organizácie boli vydané *bezpečnostné ciele v oblasti kvality a bezpečnosti poskytovaných služieb.* Na každom pracovisku by mali byť detailne popísané postupy, ako robiť hygienu rúk a všetci pracovníci by mali byť preškolení a potvrdiť svoje preškolenie podpisom. Periodické školenia sa robia 1x za rok a riadi ich ústavný hygienik, alebo poverený zamestnanec.(Bobáľ, 2008)
Svetová zdravotnícka organizácia (SZO) uvádza 5 dôvodov pre dezinfekciu rúk v bezprostrednej blízkosti pacienta:

1. Pred dotykom pacienta rukami,
2. Pred čistým alebo aseptickým výkonom,
3. Po dotyku pacienta rukami,
4. Po možnom dotyku rúk s telovými tekutinami pacienta,

5. Po dotyku rúk s nemocničným prostredím.(Fetisovová, Ž., Kelčíková, S.,Adamicová, Á, 2007)

3 PROSTRIEDKY POUŽÍVANÉ V HYGIENE RÚK ZDRAVOTNÍKOV

Obyčajné (detergentné) mydlá sú určené hlavne na odstraňovanie viditeľných nečistôt a čiastočnú redukciu tranzientnej mikroflóry.
Spolu s vodou mechanicky odstraňujú nečistoty a určité množstvo mikroorganizmov. *Dezinfekčné látky* sú nevyhnutné na usmrcovanie alebo zastavenie rastu mikroorganizmov. Okrem bakteriostatického a baktericídneho účinku majú antibakteriálne látky v dezinfekčných mydlách oproti obyčajným mydlám ďalšiu charakteristickú vlastnosť – majú schopnosť prechádzať do stratum corneum pokožky, z čoho vyplýva ich perzistentná (dlhodobá) účinnosť na koži. Množenie mikroorganizmov na rukách vnútri plastových alebo gumených rukavíc a poškodenie rukavíc počas operácie zvyšujú riziko kontaminácie operačných rán. Perzistencia (tiež nazývaná substantivita alebo reziduálny účinok) je žiaduca najmä na zlepšenie kontinuálnej antimikróbnej aktivity v prípadoch, keď nie je možné umývať ruky v priebehu dlhotrvajúceho chirurgického zásahu, alebo ak je dlhodobá aktivita na koži výhodná z iného dôvodu. Napr. s výhodou sa používa reziduálny účinok chlorhexidínu pridávaného do alkoholového dezinfekčného prípravku v situácii, keď sa na oddelení vyskytujú grampozitívne mikroorganizmy, zvlášť MRSA. (Langšádl,2011)
Dezinfekčné mydlá spájajú dva účinky: mechanické odstránenie nečistôt a mikroorganizmov a usmrtenie alebo inhibíciu (zastavenie rastu) tranzientných mikroorganizmov, redukujú aj časť rezidentných mikroorganizmov. Umývanie rúk dezinfekčným mydlom je účinnejšie v redukcii mikroorganizmov ako umývanie rúk obyčajným mydlom.(Bobulský, G.S. et al. 2008)

3.1 Odporúčané postupy

Pri umývaní ako aj pri dezinfekcii ide o pokrytie celého povrchu rúk napeneným mydlom alebo dezinfekčným prostriedkom. Pri umývaní sa z rúk pokrytých mydlom odstraňuje znečistenie mechanickým spôsobom. Pri dezinfekcii rúk sa na nich rovnomerne rozotrie dezinfekčný prípravok a ruky sa nechajú oschnúť. Dezinfekčný prípravok alebo mydlo sa aplikuje na ruky dávkovačom, ktorý je potrebné pravidelne čistiť a zásobníky dezinfekčných prípravkov obmieňať. Ich opätovné plnenie, predovšetkým mydlami a regeneračnými krémami na ruky, je neprípustné pre možnú mikrobiálnu kontamináciu.
Na umývanie rúk sú vhodné len tekuté mydlá. Používanie pevných mydiel ako aj textilných uterákov je z hygienických dôvodov nevyhovujúce. Na osušenie rúk sa používajú papierové uteráky na jedno použitie. Vhodné miesto pre dávkovače mydla je pri umývadle, kam patria aj dávkovače s regeneračným krémom na ruky. Dávkovače dezinfekčných prostriedkov treba uložiť na miesta, kde je najčastejšie potrebné dezinfikovať ruky. V ostatnom čase sa najväčšmi osvedčili osobné dávkovače dezinfekčných prípravkov, ktoré sú zavesené na pracovný odev. Umožňujú vykonávať dezinfekciu rúk všade tam, kde je to potrebné. Zdravotnícki pracovníci sa zvyčajne obávajú rizika možného prenosu patogénnych mikroorganizmov z nemocnice do ich domovov. S výnimkou oddelení, kde sú hospitalizovaní pacienti s prenosnými ochoreniami, je toto riziko malé. Pôvodcovia nemocničných nákaz sú nebezpeční zvyčajne len pre osoby so zníženou imunitnou odpoveďou.
Podstatne vyšším rizikom je prenos patogénnych mikroorganizmov z domova do zdravotníckeho zariadenia. Môže ísť o bežné prenosné ochorenia rodinných príslušníkov, ako je dávivý kašeľ, mumps, detské kiahne a pod. Sú popísané prípady, kedy zdravotníci preniesli na pracovisko závažných pôvodcov mykotických ochorení od svojich domácich zvierat, ktoré spôsobili smrteľné ochorenia na oddeleniach pre nedonosené deti alebo infekcie v mieste operácie na kardiochirurgickom oddelení (Aylife et al. ,1984).

Koža často umývaných a dezinfikovaných rúk je vysušovaná, a teda netreba zabúdať na používanie vhodných ochranných krémov v starostlivosti o pokožku rúk.

Záver

Najúčinnejším spôsobom prevencie prenosu pôvodcov infekčných ochorení zo zdravotníckeho zariadenia na rodinných príslušníkov, rovnako ako z domova na pacientov, je dôsledné dodržiavanie hygieny rúk.

Použitá literatúra

1. AL KADI, A., SALATI, S. A. 2013. Hand Hygiene Practices among Medical Students.In Interdisciplinary Perspectives on Infectious Diseases, roč. 2012, čl. č. 679129
2. AYLIFFE, G. et al. 1988. Hand disinfection: a comparison of various agents in laboratory and ward studies. In J Hosp Infekt. 1988, no.11, p.226
3. BOBÁĽ, J.2008. Hygiena rúk. In Sestra a lekár v praxi , 2008, roč. 7, č. 11-12, s. 24
4. BOBULSKÝ, G.S. et al. 2008. Clostridium difficile skin contamination in patiens with C. difficile-associated disease. In Clinical Infections Diseases. 2008, no. 46, p. 447-450.
5. DRUSIN, L., M., ROSS, B., G., RHODES, K.,H. et al. *Nosocomial ringworm in a neonatalintensive care unit: a nurse and her cat*, InfectControl Hosp Epidemiol. 2000, 21, 9, 605– 07.
6. FETISOVOVÁ, Ž., KELČÍKOVÁ, S.,ADAMICOVÁ, K.2007. Hygiena rúk a profesionálne dermatózy zdravotníkov. In Žiaková, K. Teória, výskum a vzdelávanie v ošetrovateľstve. Martin: Univerzita Komenského JLF, 2007. ISBN 978-80-88866
7. HRUBIŠKO, M.2003. Alergológia.Martin: Osveta, 2003. s.518. ISBN 80-8063-110-7.
8. JUŘENÍKOVÁ, P.2008. Vědomosti všeobecných sester o hygienickém zabezpečení rukou ve zdravotnickém zařízení. In Diagnóza v ošetřovatelství. ISSN 1801-1349, 2008, roč. 4, č. 8, s. 24-26.
9. LANGŠÁDL,L. Význam hygieny rúk v zdravotníctve. In: Sestra a lekár v praxi ,2011, č.1 roč. XV., s. 46 – 50 ISSN 1335-9444.
10. LARSON, E., McGINLEY, K., J., GROVE, G., L. et al. Physiologic, microbiologic, and seasonal effects of handwashing on the skin of health care personnel. In *Am J Infect Control* 2008;14:51-9.
11. WEINSTEIN, R., A. Epidemiology and controlnosocomial infections in adult intensive care units. In *Am J Med*, 1991, 91, Suppl 3B:S, 179 – 184.

Kontakt

PhDr. Iveta Ondriová PhD.
Fakulta zdravotnických odborov PU v Prešove
ul. Partizánska 1
Tel: 051 75 62 411
email: iondriova@centrum.sk

MOTIVAČNÉ ČINITELE V PRÁCI SESTRY PRACUJÚCEJ V NEMOCNIČNÝCH ZARIADENIACH

MOTIVATIONAL FACTORS AT WORK OF A NURSE WORKING IN A HOSPITAL

Jana Cuperová, Terézia Fertaľová, Lívia Hadašová, Iveta Ondriová, Ján Suszka

Abstrakt

Táto práca sa zaoberá motivačnými činiteľmi v práci sestry pracujúcej v nemocničných zariadeniach. Popisujeme teórie motivácie, motívy a motivačné činitele, ktoré ovplyvňujú prácu sestier v ústavných nemocničných zariadeniach. Prieskum je realizovaný metódou dotazníka, ktorý je zameraný na motivačné činitele ovplyvňujúce prácu sestry. Cieľom prieskumu bolo zistiť, aké motivačné činitele ovplyvňujú prácu sestier pracujúcich v nemocničných zariadeniach.

Kľúčové slová: *Motív, motivácia, motivačný činiteľ, ošetrovateľská starostlivosť, sestra, prieskum.*

Abstract

This work deals with motivational factors of nurse's work who is working in a hospital. In the inducrotion describes and characterizes theories of a motivation, motives and motivational factors which influence work of a nurse in institutional hospital facilities. The practical part consists of a survey. The survey is realized by the method of questionnaire which is focused on motivational factors influencing the job of nurses. The goal of the survey is to find out what motivational factors the most often influence the job of nurses working in hospital.

Key words:*Motive, motivation, motivational agent, nursing care, nurse, survey.*

1. ÚVOD

Motivácia a s ňou súvisiace motivačné činitele sú stále aktuálnou a zaujímavou témou. Aktuálna politická situácia, postoj stavovských organizácii a udalosti i okolnosti, ktoré sa udiali v poslednom období na Slovensku majú určite vplyv na motiváciu sestier, či vzťah sestier k výkonu povolania. Prečo sa ľudia správajú tak, ako sa správajú, prečo urobili to, alebo ono pútali pozornosť mysliteľov od ranných čias ľudstva. Veľa výskumov bolo venovaných problematike a otázok týkajúcich sa ambícii človeka, čo je to hrdinstvo, alebo obetovanie sa. Práve pri vysvetlení týchto a im podobných problémov sa postupne vykryštalizoval názor, že všetko čo vedie k aktivácii človeka, sú aktivačné činitele, alebo zdroje aktivácie. Uvedomelý aktivačný činiteľ alebo zdroj aktivácie označujeme ako pohnútku, alebo motív. V psychológii sa pojem motív a motivácia rozlišujú. Motív sa vysvetľuje ako dispozícia, kým motivácia ako proces realizovaný funkčným vzťahom dispozície a podnetovej situácie. Pod pojmom motív rozumieme to, čo niekoho podnecuje ku konkrétnej činnosti, alebo to, čo potvrdzuje a dáva smer činnosti, ktorá aktivizovala človeka. Motív chápeme ako činiteľ, ktorý zvyšuje intenzitu výkonu a správania vôbec, zásobuje subjekt dostatočným množstvom energie potrebnej na výkon, je to energizačný činiteľ. Motív je však aj činiteľ, ktorý určuje smer, či obsah správania ako dosahovania istého cieľa, to znamená, že je aj regulačným činiteľom (Boroš, 2001).

2. MOTIVÁCIA V PRACOVNEJ ČINNOSTI

Človek nikdy nie je motivovaný len jedným motívom, vždy ide o komplex, v ktorom sú motívy vzájomne prepojené a ovplyvňujú sa. Takto sa dostávame k motivácii činnosti a správania človeka. Motív je činiteľ, ktorý podnecuje človeka k výkonu, činnosti či konkrétnej práci. Motív je vnútorná pohnútka určitého správania a konania človeka. Smeruje k určitému cieľu a vyznačuje sa intenzitou a trvaním. Ľudské správanie je určitým spôsobom determinované a smeruje k cieľu. Motívy ovplyvňujú úroveň pracovnej motivácie každého zamestnanca. Motívy vznikajú transformáciou určitého podnetu, stimulu, alebo ako výsledok integračných osobnostných procesov. Nedá sa hovoriť o motivácii človeka, ak neexistuje vopred motív, ktorý ho nabudí k činnosti, ktorý ho rozhýbe ku konkrétnemu výkonu a k dosiahnutiu stanoveného cieľa. Motívy poznáme: vedomé – človek si ich uvedomuje, prehodnocuje a dokáže ich regulovať, nevedomé – podvedomé, ktoré vyplývajú z pudových tendencií, vnútorných konfliktov alebo komplexov, ktoré často krát obsahujú do podvedomia potlačené negatívne zážitky najmä z detstva a chorobné motívy – vyplývajú z psychopatologického stavu človeka (halucinácie). Niektoré motívy sú pomerne stále, pôsobia v rôznej intenzite počas celého života človeka prejavujúce sa v pracovnom procese nielen formou potrieb, ale aj záujmov, ambícii či hodnôt. V pracovnom procese poznáme aj celú škálu krátkodobých podnetov. Ide o tzv. situačné motívy. Tie sú prítomné v určitej situácií ktorá vznikla a trvajú väčšinou počas doby trvania danej situácie. Ak daná situácia pominie, pominie aj konkrétny situačný motív. Motívy, ktoré vznikajú v súvislosti s pracovným procesom sa nazývajú aj pracovné motívy. Delia sa podľa toho, ako pôsobia na pracovný výkon a výkonnosť zamestnancov. Pozitívne pracovné motívy sú vedomé pohnútky k pracovnej činnosti, pričom sú navodené očakávaním odmeny prípadne nejakého benefitu. Negatívne pracovné motívy sú dôsledkom uvedomenia si trestu, či sankcie a sú cielené na odvrátenie hroziaceho nebezpečenstva a trestu.

3. MOTIVAČNÉ TEÓRIE

Teórie motivácie, ako uvádza Armstrong (2007), skúmajú proces motivovania a proces utvárania motivácií. Vysvetľujú, prečo sa ľudia pri práci správajú určitým spôsobom a prečo vyvíjajú úsilie konkrétnym smerom. Popisujú príklady, z ktorých môžu organizácie čerpať idey ako povzbudiť zamestnancov tak, aby uplatnili svoje schopnosti a zároveň vyvinuli úsilie takým spôsobom, ktorý podporí splnenie cieľov organizácie a rovnako ich vlastných potrieb. Teórie sa taktiež zaoberajú spokojnosťou s prácou, faktormi, ktoré ju vytvárajú, a jej vplyvom na pracovný výkon zamestnancov (Armstrong 2007, s. 221). Vzhľadom na množstvo teórií a rozdielnych prístupov k motivácii uvádzame tie najdôležitejšie v stručnom prehľade. Teórie motivácie môžeme rozdeliť na teórie zamerané na obsah (nazývané taktiež teórie príčiny) a teórie zamerané na proces. Tretia skupina popisuje teórie zamerané na stimuláciu a teórie integrujúce viaceré poznatky z iných teórií motivácie.

3.1 Teória potrieb Abrahama Maslowa

Autor tejto teórie, americký psychológ a profesor, A. Maslow bol presvedčený, že ak chceme pochopiť motiváciu v práci, je potrebné najprv všeobecne porozumieť ľudskej motivácie. Podľa A. Maslowa motivácia vychádza z potrieb. Maslowova teória hierarchie potrieb sa zakladá na dvoch predpokladoch: 1. Každá potreba človeka závisí od toho, čo už má, iba neuspokojené potreby môžu ovplyvniť správanie človeka. 2. Potreby človeka sú usporiadané hierarchicky podľa dôležitosti – ak sa uspokojí potreba nižšej úrovne, nastupuje potreba vyššej úrovne a motivuje človeka. Potreby ľudí rozdelil A. Maslow do piatich skupín hierarchicky od najnižšej po najvyššie položenú potrebu: fyziologické potreby, potreba bezpečia (istoty), sociálne potreby, potreba uznania (úcty), potreba sebarealizácie.

Z Maslowovej teórie potrieb vyplýva, že najprv je potrebné uspokojiť potreby na nižšej úrovni až potom potreby na vyššej úrovni. Podľa M. Nakonečného (2005) najnižšie štyri stupne v hierarchii predstavujú tzv. potreby nedostatkové a uplatňuje sa u nich princíp znižovania konkrétneho deficitu. U najvyššej potreby sebarealizácie sa situácia mení. A. Maslow túto potrebu chápe ako súhrn rôznych tendencií vedúcich k osobnostnému rastu, ale vo svojej podstate nemôžu byť nikdy uspokojené.



Obrázok 1 Pyramída potrieb podľa Maslowa

Maslowova teória neposkytuje úplný návod, ktorý má viesť k pochopeniu ľudskej motivácie, alebo nástrojov motivovania ľudí, ale slúži ako východisko pre osoby študujúce problematiku riadenia.

4. CIELE PRIESKUMU

Cieľom nášho skúmania bolo identifikovať motivačné faktory v práci sestier. Skúmali sme do akej miery sú sestry motivované k lepšiemu výkonu finančnými stimulmi s ohľadom na ich vzdelanie a dĺžku praxe, zisťovali sme spokojnosť sestier s finančným ohodnotením. Analyzovali sme motivačné faktory v oblasti potreby bezpečnosti u sestier, záujmu manažmentu, spokojnosti sestier s kvalitou vzťahov v organizácii, možnosťou kariérneho rastu sestier a z hľadiska vnímania spoločenského postavenia svojho povolania.

5. METODIKA PRIESKUMU

Prieskum bol realizovaný v neštátnej regionálnej nemocnici na východnom Slovensku metódou dotazníka. Dotazník bol vypracovaný na základe motivačnej teórie A. Maslowa a bol rozdelený do 5 oblastí: základné potreby, bezpečnosť, úcta, vzťahy, sebarealizácia. Dotazník obsahoval dvadsať uzavretých položiek. Odpovede v dotazníku boli hodnotené pomocou Likertovej škály.

6. CHARAKTERISTIKA SKÚMANÉHO SÚBORU

Skúmaný súbor tvorilo 130 sestier pracujúcich prevažne na lôžkových oddeleniach nemocnice. Priemerný vek respondentov bol 43,25 roka a tvorili ho vo väčšine ženy (98%). V prevažnej miere to boli sestry s dĺžkou praxe viac ako 10 rokov (71%). Z celkového počtu bolo 71 respondentov so stredoškolským vzdelaním s maturitou, čo tvorí 54,62 % a 59 respondentov s vysokoškolským vzdelaním, čo prestavuje 45,38 %.

7. VÝSLEDKY PRIESKUMU

Predpokladali sme, že sestry nebudú motivované iba finančnými stimulmi, mzdovými príplatkami a podobnými finančnými výhodami pre lepší výkon povolania. Náš predpoklad sa splnil nakoľko z našich výsledkov je jasne preukázateľné, že 69 % respondentov nesúhlasí s finančnými stimulmi, ako s jediným atraktívnym motivačným činiteľom. Avšak respondenti sa na otázku, či finančné stimuly ich motivujú viac, ako nefinančné stimuly zhodli na 100 %.

Môžeme teda usúdiť na základe týchto výsledkov, že prevažná väčšina respondentov nie je spokojná a nesúhlasí s výškou, dostatočnosťou poskytovaných finančných stimulov. Veľmi významnými motivujúcimi faktormi sú aj nefinačné odmeny. Podľa Škrlových (2003) k nefinančným stimulom patria: *uznanie , úprimné poďakovanie za mimoriadne dobrú prácu, verejné uznanie, vyhlásenie najlepšieho pracovného tímu a sestry mesiaca, písomné uznanie.* Iné odmeny: *dary a privilégia* – predplatné, členstvo v nejakej spoločnosti a pod., *zvláštne udalosti* – večierky, lístky do divadla, na koncert, *profesionálne kurzy* – v práci alebo mimo nej, *zariadenie* – počítač v kancelárii. Viacerí autori sa zhodli, že tieto faktory nestimulujú k lepšiemu pracovnému výkonu ale vytvárajú pozitívny vzťah k zamestnávateľovi a zlepšujú pracovnú atmosféru. Našim ďalším cieľom bolo zistiť spokojnosť sestier s finančným ohodnotením**,** teda so samotnou mzdou, ktorú za svoju vykonanú prácu poberajú. Predpokladali sme, že sestry nebudú spokojné s finančným ohodnotením, mzdou za vykonanú prácu. Z celkového počtu respondentov je skôr nespokojných so svojou mzdou 23 respondentov čo tvorí 17,69% a nespokojných so mzdou je 107 respondentov čo tvorí zvyšných 82,31%. Jednoznačne sa potvrdilo, že sestry nie sú spokojné s finančným ohodnotením svojej práce. Na základe legislatívnej úpravy platov zdravotníckych pracovníkov z roku 2016 existujú platové tabuľky s minimálnymi mzdovými nárokmi pre sestry podľa dĺžky praxe. Sestra, či už pracujúca v štátnom, alebo neštátnom zdravotníckom zariadení bez praxe by mala mať nárok na minimálne 715,23 EUR mesačne. S počtom odpracovaných rokov by sa jej táto mzda mala narastať. V niektorých neštátnych zdravotníckych zariadeniach sa stalo to, že aby nemuseli sestry dostať to, čo im zákon dáva, boli preradené na určité percento zo 100 percent do pozície administratívneho pracovníka. Konkrétne percento záviselo od dĺžky praxe, ktorú sestra má. Reálna mzda sestier pracujúcich v neštátnych zdravotníckych zariadeniach je v rozmedzí od 500 do 600 eur mesačne.

Tabuľka 1 Motivačné faktory - uspokojenie základných potrieb

Motivačné faktory	**úplne súhlasím**	**súhlasím**	**skôr nesúhlasím**	**nesúhlasím**
Mzdové príplatky dávané zamestnancom ich motivujú k lepšej práci	7,69 %	23,08 %	38,46 %	30,77 %
Finančné stimuly ma motivujú viac ako nefinančné stimuly	100,00 %	0 %	0 %	0 %
Som spokojný/á s platom, ktorý v súčasnosti poberám	0 %	0 %	17,69 %	82,31 %

Ďalším cieľom bolo analyzovať motivačné faktory v oblasti potreby istoty a bezpečia. Na otázku, či sa sestry cítia pri svojej práci bezpečne sa vyjadrili respondenti nasledovne. Z výsledkov nám vyšiel jasný pozitívny výsledok, kde úplný súhlas vyjadrilo 35,92 % sestier a súhlas aj zvyšných 73,08 %. Pri hodnotení, či v organizácii sú poskytované dobré fyzické pracovné podmienky 38,46 % súhlasí, ale až 61,54 % respondentov nie je spokojných. V oblasti starostlivosti o zdravie respondentov zo strany organizácie, kde pracujú boli všetci respondenti (100 %) nespokojní.

Tabuľka 2 Motivačné faktory - potreba bezpečia a istoty

Motivačné faktory	**úplne súhlasím**	**súhlasím**	**skôr nesúhlasím**	**nesúhlasím**
V tejto organizácii sú poskytované dobré fyzické pracovné podmienky	0 %	38,46 %	42,31 %	19,23 %

Zamestnanci tejto organizácie sa pri svojej práci cítia bezpečne	26,92 %	73,08 %	0 %	0 %
Dostupné dôchodkové dávky (príspevok na DDS a pod.) sú dostatočné	0 %	53,85 %	46,15 %	0 %
Starostlivosť o zdravie (rekondičné pobyty a pod.) poskytované v organizácii sú uspokojivé	0 %	0 %	0 %	100,00 %

Tabuľka 3 Motivačné faktory - potreba úcty a sebaúcty

Motivačné faktory	**úplne súhlasím**	**súhlasím**	**skôr nesúhlasím**	**nesúhlasím**
Stretávanie sa s vrcholným manažmentom je pre mňa dôležité	65,38 %	0 %	34,62 %	0 %
Nadriadený oceňuje prácu mnou vykonanú	0 %	70,77 %	0 %	29,23 %
Cítim, že práca, ktorú vykonávam, mi zaručuje dobré spoločenské postavenie	0 %	0 %	67,69 %	32,31 %
Som spokojný so zodpovednosťou a úlohou, ktorú mám v práci	16,92 %	0 %	15,38 %	67,69 %

Treťou skúmanou oblasťou vychádzajúc z teórie Maslowa bola oblasť úcty a sebaúcty. Zisťovali sme, či sestry sú motivované záujmom, zo strany manažmentu, ako aj záujem sestier o top manažment organizácie**.** Predpokladali sme, že sestry budú motivované zo strany manažmentu a budú mať záujem spolupodieľať sa na poskytovaní informácii zo strany top manažmentu zariadenia. Na dôležitosť kontaktu s top manažmentom organizácie sa kladne vyjadrilo 65,38 % respondentov, oproti 34,62 %, ktorí sa vyjadrili, že im na kontakte s top manažmentom nezáleží. Zisťovali sme aj, či nadriadený dokáže oceniť a oceňuje prácu vykonanú svojim personálom. Na túto otázku sme dostali súhlasné stanovisko 70,77 % respondentov. Negatívne sa nám vyjadrilo 29,23%. Kontakt sestier a vrcholového manažmentu môže zlepšiť aj zavedenie systému kvality v zdravotníckom zariadení. Kostičová, a kol. (2012). uvádzajú výsledky prieskumu, z ktorých vyplýva, že zamestnanci nemocníc vnímajú prínosy systému manažérstva kvality, a to najmä vedúci pracovníci, a z radových zamestnancov sestry. Pracovníci nemocníc ocenili prínos systému manažérstva kvality najmä pre oblasť zlepšenia image a vytvorenia jasných pravidiel fungovania zdravotníckeho zariadenia. Aj keď pracovníci nemocníc pociťujú nedostatok času, motivácie a ľudských zdrojov pre zavádzanie systému kvality. Úlohou vedúcich pracovníkov je vytvárať štruktúru motivácii a stimulov, prostredníctvom ktorých sú zamestnanci podnecovaný k podpore cieľov zariadenia. Naším cieľom bolo zistiť, ako sestry vnímajú spoločenské postavenie svojho povolania. Predpokladali sme, že sestry budú spoločenské postavenie svojho povolania, alebo poslania vnímať pozitívne a zaujmú k svojmu povolania kladný vzťah. Cieľ sa nám nesplnil, nakoľko podľa výsledkov prieskumu všetky sestry vyjadrili negatívne stanovisko. Skôr negatívne sa vyjadrilo 67,69 % respondentov a negatívne stanovisko zaujalo aj zvyšných 32,31 % respondentov. V kontexte posledných udalostí, ktoré sa odohrali minulé roky by sa dalo predpokladať, že sestry zanevrú na svoj status. Sesterské povolanie prešlo po vstupe Slovenska do Európskej únie mnohými zmenami. Celoživotné vzdelávanie, kvalifikačné, špecializačné štúdia, či vysokoškolské štúdium je dnes pre mladé sestry samozrejmosťou, ku ktorej pristupujú zodpovedne, nakoľko

záujem o štúdium nelekárskych zdravotníckych odborov neklesol oproti minulému roku. Problém vidíme snáď v nejednotnosti sestier v boji o vlastné záujmy a celkové spoločenské postavenie, nakoľko vysokoškolsky vzdelané sestry dnes nie sú finančne, a ani morálne docenené, čo stráca na atraktivite povolania. Nejednotnosť sestier a stavovskej organizácie tento status ešte viac zneisťuje. Je na mladých, šikovných, sebavedomých, cieľavedomých a hlavne vzdelaných sestrách, aby tento status zmenili a aby sestra patrila tak, ako v minulosti aj dnes k atraktívnym povolaniam. Podľa Škrlových (2003) k atraktivite spoločenského postavenia by mali prispieť tieto hlavné motivačné faktory: *úspech* – jeden z najsilnejších motivačných faktorov a prirodzená túžba človeka; *uznanie* – pre mnoho zamestnancov je uznanie vrcholovým manažmentom úspechom, odmenou i motivačným činiteľom k lepším výkonom v práci; *pracovná náplň* – ktorá môže byť pre zamestnancov zaujímavá a príťažlivá je silným motivačným činiteľom. Robte to, čo milujete a milujte to, čo robíte. Potom práca prestáva byť prácou a naberá určite iné dimenzie. Z*odpovednosť* – príležitosť mať moc a kontrolu nad ľuďmi alebo vecami vyžaduje vodcovské vlastnosti, rozhodovanie a riskovanie. Tieto vlastnosti zvyšujú sebavedomie a sú silnými motivátormi. P*ostup v profesionálnej kariére* – postup v organizácii je silným motivačným faktorom.

Tabuľka 4 Motivačné faktory - oblasť vzťahov

Motivačné faktory	**úplne súhlasím**	**súhlasím**	**skôr nesúhlasím**	**nesúhlasím**
Kvalita vzťahov v neformálnych pracovných skupinách je pre mňa veľmi dôležitá	88,46 %	11,54 %	0 %	0 %
Som spokojný s podporou z oddelenia ľudských zdrojov	34,62 %	65,38 %	0 %	0 %
V tejto organizácii je správny podiel tímového ducha	0 %	20,77 %	33,08 %	46,15 %
Cítim sa motivovanejší, keď sa zúčastňujem na organizáciou vykonávaných aktivitách	13,08 %	84,62 %	0 %	2,31 %

Ďalším cieľom, ktorý sme si stanovili v našej práci bolo zistiť spokojnosť sestier s kvalitou vzťahov v organizácii a dôležitosť interpersonálnych vzťahov. Kvalita vzťahov v organizácii je pre všetky sestry dôležitá a takisto sú spokojné s podporou oddelenia ľudských zdrojov. Zaujímal nás aj správny podiel tímového ducha v organizácii, nakoľko profesia sestry je tímovou profesiou. Z odpovedí, ktoré nám poskytli respondenti vyplýva, že takmer 80 % respondentov si nemyslí, že v organizácii prevláda správny podiel tímového ducha. Iba 20 % sa cíti vo svojom kolektíve ako v tíme.

Tabuľka 5 Motivačné faktory - oblasť sebarealizácie

Motivačné faktory	**úplne súhlasím**	**súhlasím**	**skôr nesúhlasím**	**nesúhlasím**
Vo svojej práci chcem byť najlepší	75,38%	0 %	24,62%	0 %
Vo všeobecnosti si rád plánujem svoju prácu a robím rozhodnutia s ňou súvisiace pod minimálnym dohľadom	20,77 %	13,85 %	42,31 %	23,08 %
Hľadám príležitosti na postup v tejto organizácii	16,15 %	19,23 %	23,08 %	41,54 %

Mojím cieľom je sebapoznanie a vzdelanie, najdôležitejšou vecou je pre mňa uvedomenie si môjho osobného potenciálu	90,00 %	10,00 %	0 %	0 %

Sestry nie sú spokojné so zodpovednosťou a úlohami počas plnenia a vykonávania bežných pracovných úloh a činnosti, čo vyjadrilo až 67,69 % respondentov. 20,77 % sestier si radi Samostatne si plánuje svoje pracovné činnosti a dokáže sa rozhodovať samostatne pod minimálnym dohľadom 35 % sestier. Analýzou podľa vzdelania samostatne chcú vykonávať ošetrovateľskú starostlivosť 52,55 % vysokoškolsky vzdelaných respondentov a iba 19,72 % stredoškolsky vzdelaných respondentov.

E. Zacharová (2010) realizovala prieskum, ktorého cieľom bola analýza motivujúcich a demotivujúcich faktorov v práci sestier. Prieskumu sa zúčastnilo 292 žien a 8 mužov pracujúcich ako sestry, z Moravskosliezkého kraja. Zozbierané údaje boli veľmi zaujímavé, predovšetkým údaje týkajúce sa negatívnych faktorov ovplyvňujúcich profesiu sestry. Ako uvádza medzi negatívne faktory, ktoré môžeme považovať za demotivujúce v ošetrovateľskej praxi sestier je v 28,7% zastúpená psychická záťaž, náročnosť povolania a stres.

Na ďalšom mieste u 24 % respondentov sa jedná o finančnú pod hodnotenosť sesterskej profesie, prípadne zaradenie do nízkej platovej triedy. Svoju úlohu tu zohráva aj mimoriadna psychická záťaž (14,3%) a v niektorých oblastiach aj kritika zlej organizácie práce (12,3 %).

8. ZÁVER

Motivácia je dôležitý faktor ovplyvňujúci činnosť zdravotníkov. Zdravotnícke zariadenia by mali mať vypracované motivačné stratégie týkajúce sa starostlivosti o zamestnanca. Hlavnou úlohou top manažmentu by malo byť budovanie organizačnej kultúry v ošetrovateľstve, v ktorej sa kladie dôraz na kolegiálnosť v pracovnom prostredí a zároveň, by sa používali motivačné techniky, ako napríklad vzdelávanie, efektívna komunikácia, odborný rast. Aby zdravotníci mohli zodpovedne plniť svoje povolanie v starostlivosti o tých, ktorý potrebujú pomoc, je nevyhnutné správane ich motivovať, poskytnúť im podnety a stimuly. Práve na tom, by sa mal manažment zdravotníckych zariadení podieľať.

Literatúra

1. ADAMKOVIČOVÁ, M. 2009. *Motivácia sestier v oblasti pracovného výkonu: diplomová práca.* Prešov: PU FZ, 2009. 92 s.
2. ARMSTRONG, M. 2007. *Řízení lidských zdroj*ů. 1. vyd. Praha: Grada Publishing, 2007. 800 s. ISBN 978-80-247-1407-3.
3. BÁRTLOVÁ, S. , MARKOVÁ, M. 2008. *Role sestry specialistky.* 1. vyd. Brno: NCO NZO, 2008. 102 s. ISBN 978-80-7013-484-9.
4. BOROŠ, J. 2001. *Základy sociálnej psychológie: pre študujúcich humánne, sociálne a ekonomické vedy.* 1. vyd. Bratislava: IRIS, 2001. 227s. ISBN: 80-89018-20-3.
5. DLUGOŠOVÁ, A., TKÁČOVÁ, Ľ. 2011. Motivace a její aplikace na práci sester. In *Sestra: odborný* č*asopis pro nelékeřské zdravotnické pracovníky.* ISSN 1210-0404, 2011, roč. 21, č. 9, s. 22-24.
6. KOSTIČOVÁ, M., RUSNÁKOVÁ, V., LUHA, J. 2012. Názory zamestnancov nemocníc na systém manažérstva kvality implementovaný v súlade s požiadavkami normy ISO 9001. In *Forum statisticum slovacum*. ISSN 1336 – 7420, 2012, roč.8, č.2, s. 65-71.
7. NAKONEČNÝ, M . 2005. *Sociální psychologie organizace.* 1. vyd. Praha : Grada Publishing, 2005. 228 s. ISBN 80-247-0577-X.

8. ŠKRLOVI, P. a M. 2003. *Kreativní ošetrovatelský management.* 1. vyd. Praha: Advent – Orion, 2003. 485 s. ISBN 80-7172-841-1.
9. ZACHAROVÁ, E. 2010. Motivační faktory v sesterském povoláni. In *Sestra: odborný časopis pro nelékařské zdravotnické pracovníky.* ISSN 1210-0404, 2010, roč. 20, č.6, s. 30-31.

Kontaktní údaje

PhDr. Jana Cuperová, PhD.
Fakulta zdravotnických odborov
Prešovská univerzita v Prešove
Ul. Partizánska 1
080 01 Prešov
Tel: +421 51 7562 455
email: jana.cuperova@unipo.sk

THEMATIC DOMAIN | XII.

STAVEBNICTVÍ, STROJÍRENSTVÍ

ENGINEERING, BUILDING INDUSTRY

NUMBER OF PAPERS: 8



IMPLEMENTACE LEGISLATIVNÍCH POŽADAVKŮ VE VZTAHU K BEZBARIÉROVÉMU PROSTŘEDÍ - PŘÍPADOVÁ STUDIE

IMPLEMENTATION OF THE LEGISLATIVE REQUIREMENTS IN RELATION TO ACCESSIBLE ENVIRONMENT - CASE STUDY

Petra Kocurová, Alžběta Bílková, Kateřina Kocurová

Abstrakt

Česká republika má v současnosti přívětivě nastaveno právní prostředí pro realizaci a změny staveb v návaznosti na potřeby osob se specifickými požadavky. Tyto požadavky jsou zakomponovány do legislativy, která je avšak v mnoha případech nesprávně použita při návrhu nebo realizaci staveb. Článek hodnotí implementaci vyhlášky č. 398/2009 Sb., o obecných technických požadavcích zabezpečujících bezbariérové užívání staveb. Případová studie řešení úprav přechodů a míst pro přecházení je lokalizována v Ostravě, na ulici 28. Října a ulici Opavská. Na typových přechodech a místech určených k přecházení byly sledovány kvalitativní i kvantitativní ukazatele jednotlivých bezbariérových prvků.

Klíčová slova: *pěší doprava, přechody pro chodce, nevidomí, bezbariérovost*

Abstract

The Czech Republic has a well-established legal environment for the realization and change of buildings in line with the needs of people with specific requirements. These requirements are incorporated into legislation that is, however, in many cases incorrectly used in the design or construction of buildings. The article evaluates the implementation of Decree No. 398/2009 Coll., On general technical requirements ensuring the barrier-free use of buildings. A case study on the solution of transitions and crossing points are in the Ostrava, 28. Října and Opavská Street. The quality and quantitative indicators of the individual barrier elements were monitored at type crossings and places to be crossed.

Key words: *pedestrian traffic, pedestrian crossings, the blind, barrier-free*

1 ÚVOD

Veřejná prostranství jsou českým právním prostředím definována jako „*Všechna náměstí, ulice, tržiště, chodníky, veřejná zeleň, parky a další prostory přístupné každému bez omezení, tedy sloužící obecnému užívání, a to bez ohledu na vlastnictví k tomuto prostoru“* (§ 34 zákona č. 128/2000 Sb., o obcích). Jedná se tedy o prostor, který je přístupný bez omezení všem. Různé skupiny uživatelů těchto prostor mají také specifické nároky a potřeby. Mezi skupiny s vysokými požadavky patří osoby s omezenou schopností pohybu a orientace v prostoru, senioři, osoby doprovázející dítě do 3 let a také v kočárku. Následující článek se soustředí zejména na aplikaci legislativních požadavků na stavby, u kterých není vyloučen pohyb osob s omezenou schopností pohybu a orientace.

Nejvíce rizikovým prostředím, ve kterém může být ohrožena bezpečnost uživatelů, se stává dopravní prostor a jeho úzké okolí. Tomuto riziku jsou vystaveni zejména pěší v místech, kde se střetává jejich pohyb s pohybem dalších druhů dopravy. Tyto místa křížení se dělí na, a to místa pro přecházení, koridory pro přecházení tramvajových pásů a přechody. Analýza se soustředí na realizaci právě těchto typů.

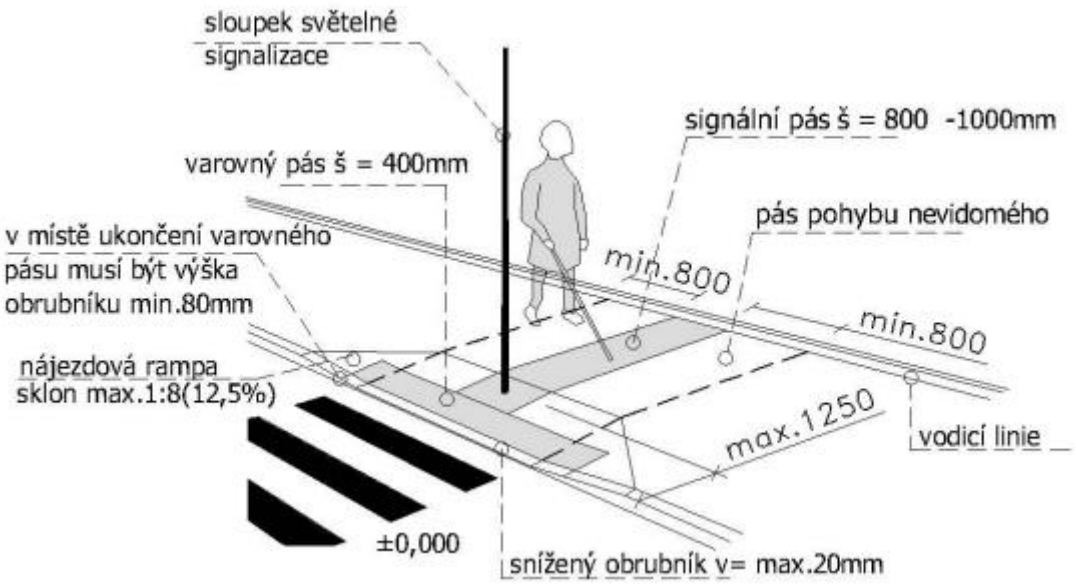
2 LEGISLATIVNÍ POŽADAVKY

Při řešení přechodů pro chodce, míst pro přecházení a koridorů pro přecházení tramvajového pásu musíme klást velký důraz na samostatný a bezpečný pohyb nevidomých a slabozrakých se zajištěním hmatových prvků a akustické signalizace (nedílná součást světelné signalizace). Tyto hmatové a akustické prvky jsou definované v Příloze č.1, bod 1.2. a jedná se o:

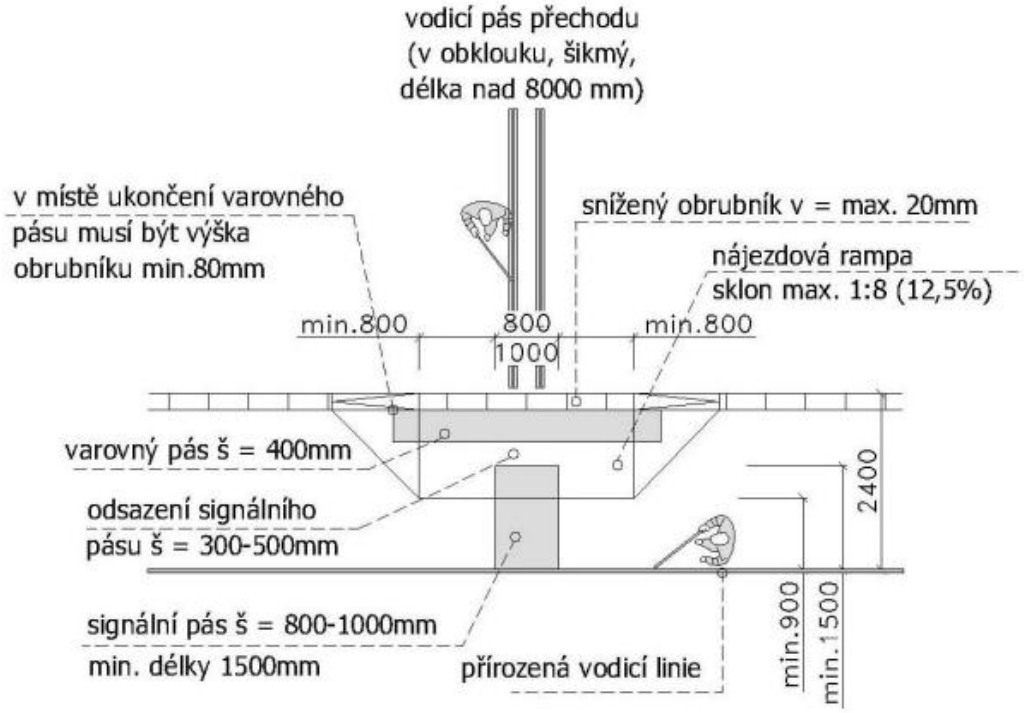
- varovný pás, který hmatově a vizuálně slouží vyznačení rozhraní vstupu do nebezpečného prostoru. Musí mít šířku 400 mm, kterou je nutno dodržet, neboť šířka pásu určuje jeho funkci. Povrch plochy do vzdálenosti nejméně 250mm od varovného pásu musí být rovinný a musí být vůči němu kontrastní;
- signální pás, jenž označuje orientačně důležité místo a vede nevidomého ve směru chůze. Jeho délka musí být nejméně 1 500mm a šířka 800 – 1 000mm. Signální pásy mají být vedeny přímo a změna směru se provádí především v pravém úhlu. Signální pás musí být ukončen vždy u přirozené vodicí linie. Povrch plochy do vzdálenosti nejméně 250mm od signálního pásu musí být rovinný a musí být vůči němu kontrastní;
- vodicí pás přechodu se užívá u přechodů a vybraných míst pro přecházení vedených v šikmém směru, delších než 8 000mm, v oblouku o poloměru menším než 12 000mm a tam, kde signální pás by byl kratší než 1 500mm.

Podmínky řešení přechodů pro chodce, míst pro přecházení a koridorů pro přecházení tramvajového pásu jsou stanoveny v Příloze č.2, bodě 2. Další podmínky jsou také v ČSN 73 6110 Projektování místních komunikací:

- přechody pro chodce, místa pro přecházení a koridory pro přecházení tramvajového pásu musí mít snížený obrubník na výškový rozdíl maximálně 20mm oproti vozovce a musí být opatřeny signálními pásy, spojujícími (u míst pro přecházení a koridorů přerušovaně) varovné pásy s vodícími liniemi;
- nájezdy na chodník v místě přechodů a míst pro přecházení přes komunikaci musí být provedeny šikmou rampou ve sklonu max. 12,5%. Stejný sklon musí mít i šikmé plochy, navazující na nájezd do stran. Nájezdy se provádějí v celé šířce značeného přechodu, nejméně však v šířce 1 500mm;
- přechody vybavené světelnou signalizací musí být vybaveny také signalizací zvukovou. Sloupek signalizace pro pěší se umísťuje přednostně do signálního pásu (zpravidla do jeho osy) ve vzdálenosti nejvýše 750 mm od bezpečnostního odstupu komunikace, ovládání samoobslužných signalizačních zařízení musí být umístěno nejvýše 1 200 mm od úrovně komunikace pro pěší. [1] [2]



Obr. 1 Řešení přechodu pro chodce dle platné legislativy [2]



Obr. 2 Řešení místa pro přecházení pro chodce dle platné legislativy [2]

3 APLIKACE LEGISLATIVNÍCH POŽADAVKŮ – PŘÍPADOVÁ STUDIE

V následující kapitole bude popsáno mapování míst pro přecházení, přechodů pro chodce a také přechodů pro chodce, které jsou signalizované. Mapování má za úkol poukázat na aplikaci požadavků, které jsou detailně popsány v legislativě a dalších pokynech pro projektování bezbariérových staveb, zejména v návaznosti na dopravní řešení. Lokalizace řešeného území je určena velkou částí na nově rekonstruovaných trasách, tudíž se jedná o aplikaci, která je ovlivněna platnou legislativou.

3.1 Definice cílů mapování

Parametry, které byly zásadní pro zkoumání, se rozdělily do skupin dle typů řešení stavebních detailů a to na parametry pro přechody nesignalizované, přechody signalizované a místa pro přecházení. Tyto parametry vycházejí z legislativních požadavků:

- Přechody nesignalizované: délka přechodu, signální pásy ve směru přecházení s osou, signální pásy od vodicí linie až k varovnému pásu, průchod po obou stranách signálního pásu, přesah varovného pásu, vedení varovného pásu do místa obrubníku s danou výškou, použití materiálu, vizuální kontrast materiálu, umístění varovných pásů, minimální délka signálního pásu, vodicí pás přechodu, návaznost vodicího pásu přechodu na signální pás, snížení obrubníku a provedení úprav jako celku;

- Přechody signalizované: délka přechodu, signální pásy ve směru přecházení s osou, obchozí trasa, možná dálková aktivace, minimální délky signálních pásů u dělících ostrůvků - signalizace, signální pásy od vodicí linie až k varovnému pásu, po obou stranách signálního pásu průchod, varovný pás má předepsaný přesah, varovný pás do místa obrubníku s v. 80mm, normovaný materiál provedení, povolený materiál akustické signalizace, vizuální kontrast materiálu, umístění sloupků akustické signalizace v signálním pásu, dodržená vzdálenost sloupku od hrany signálního pásu, vodicí pás přechodu, snížení obrubníku pro přejezd invalidním vozíkem, provedení detailu jako celku pomocí hmatových úprav;

- Místa pro přecházení: délka koridoru, odůvodněné prodloužení délky, vizuální označení, označení hranice s tramvajovým pásem, existence signálního pásu, je-li odsazený od varovného pásu, přesah varovného pásu, varovný pás veden až do výšky 80mm, povolený materiál pro hmatové úpravy, vizuální kontrast materiálu, varovné pásy umístěny za obrubníkem, dodržení délky signálního pásu, snížení obrubníku pro přejezd invalidním vozíkem, vodicí pás přechodu.

3.2 Popis řešeného území

Řešené území je situováno ve městě Ostrava, konkrétně ulice 28. Října a ulice Opavská. Tyto ulice jsou významnou dopravní tepnou města, a dochází zde ke střetům právě pěší, tramvajové a automobilové dopravy. Ulice jsou také významným dopravním propojením centra města a centra městské části Ostrava – Poruba. Jedná se o jednoproudové a dvouproudové komunikace s označením SII/479, s napojením na silnici I. třídy SI/11. Tyto ulice byly v některých úsecích rekonstruovány v letech 2014 – 2016.

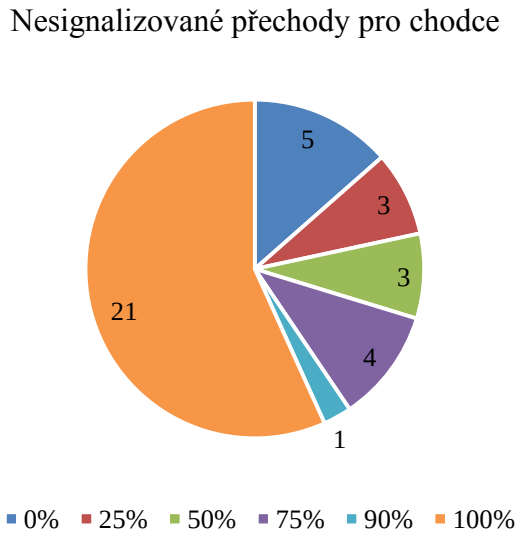
4 VYHODNOCENÍ

4.1 Nesignalizované přechody - ul. 28. Října

Sledovaných subjektů: 37

Nejčastější chyby: nedodržen vizuální kontrast materiálu; nebyly použity vodicí pásy přechodu, zejména pro přechody délky větší než 8 m.

Rizikové parametry: u nesignalizovaných přechodů je nutné klást důraz na řešení směrového signálního pásu a hmatových úprav pomocí varovného pásu.



Graf 1: Nesignalizované přechody pro chodce na ul. 28. Října

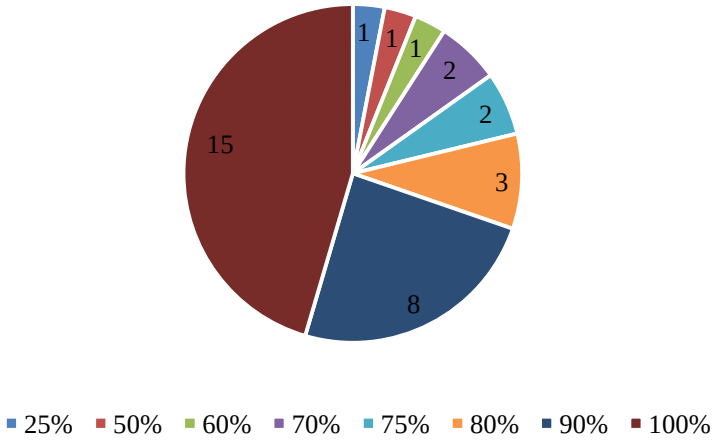
U sledovaných přechodů bylo řešeno celkově 37 subjektů, z nichž jich 21 vyhovovalo požadavkům platné legislativy. Zcela nevyhovujících přechodů na této trase je realizováno 5.

4.2 Signalizované přechody - ul. 28. Října

Sledovaných subjektů: 33

Nejčastější chyby: bez možnosti obchozí trasy, varovný pás není proveden do místa obrubníku ve výšce 80 mm, nejsou použity vodicí pásy přechodu.

Rizikové parametry: u signalizovaných přechodů je nutné klást důraz na řešení směrového signálního pásu a hmatových úprav pomocí varovného pásu, také je nutné zajistit správné použití akustických prvků.



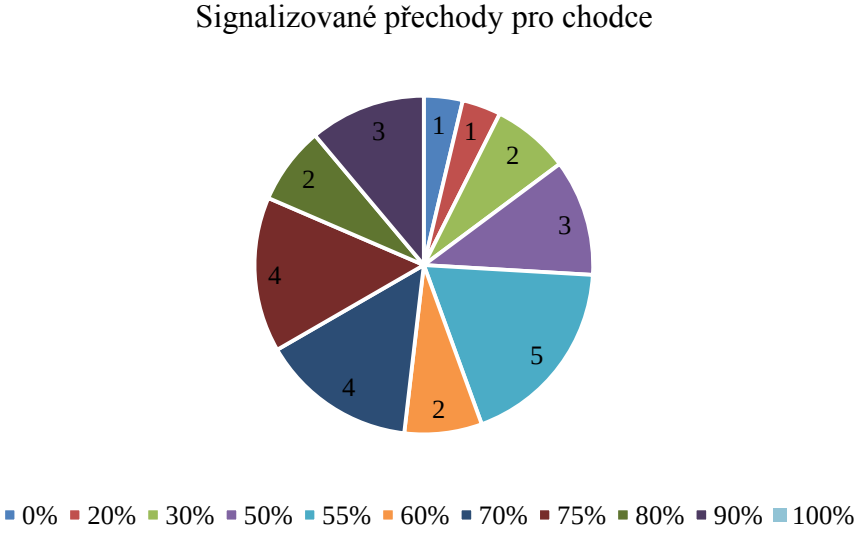
Graf 2: Signalizované přechody pro chodce na ul. 28. Října

U sledovaných signalizovaných přechodů bylo mapováno celkově 33 subjektů, z nichž jich 15 zcela vyhovovalo požadavkům platné legislativy. Zcela nevyhovující přechod na této trase je pouze 1 a další 1 splňuje požadavky pouze na 50 %.

4.3 Signalizované přechody - ul. Opavská

Sledovaných subjektů: 27

Nejčastější chyby: Nedodrženy minimální délky signálních pásů u dělicích ostrůvků, vedení varovného pásu do místa obrubníku s výškou 80 mm, dodržení vzdáleností slouhů akustické a světelné signalizace od hran signálních pásů.



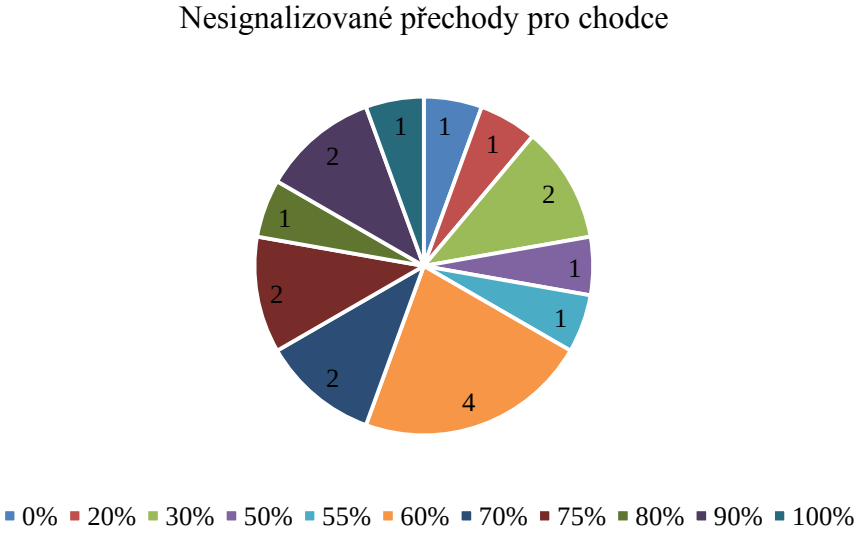
Graf 3: Signalizované přechody pro chodce na ul. Opavská

U sledovaných signalizovaných přechodů bylo mapováno celkově 27 subjektů, z nichž pouze 3 vyhovovaly požadavkům platné legislativy a to na 90 %. Z počtu 27 jich 7 splňuje požadavky platných předpisů pouze na 50 % a méně.

4.4 Nesignalizované přechody – ul. Opavská

Sledovaných subjektů: 16

Nejčastější chyby: Signální pásy nejsou vedeny ve směru s osou přecházení, nebo nejsou vůbec řešeny, chybí volný průchod po obou stranách signálních pásů, řešení varovného pásu bez doporučeného přesahu nebo výšky vedení obrubníku.



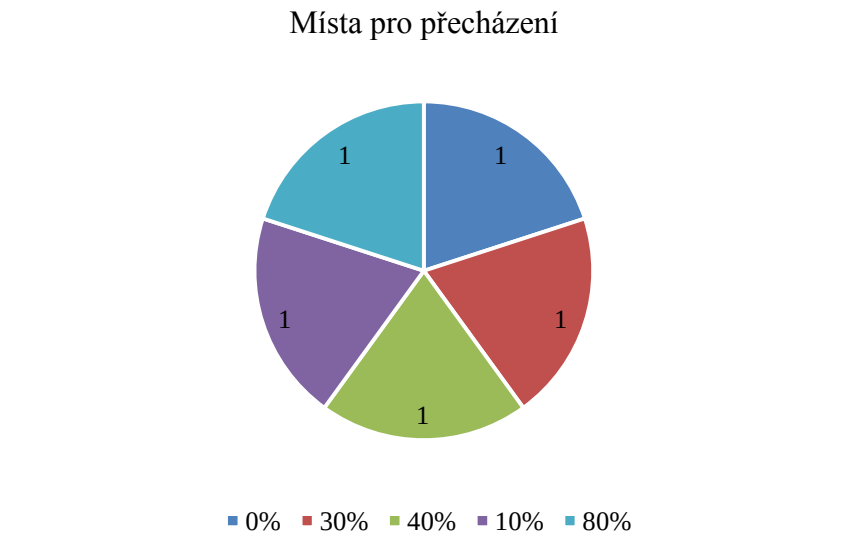
Graf 4: Nesignalizované přechody pro chodce na ul. Opavská

U sledovaných nesignalizovaných přechodů bylo mapováno celkově 16 subjektů, z nichž pouze 1 vyhovoval požadavkům platné legislativy na 100 %. Z počtu 16 jich 5 splňuje požadavky platných předpisů pouze na 50 % a méně.

4.5 Místa pro přecházení – ul. Opavská

Sledovaných subjektů: 5

Nejčastější chyby: celková absence úprav



Graf 5: Místa pro přecházení na ul. Opavská

Z celkem 5 sledovaných míst pro přecházení vyhovuje požadavkům na 80 % pouze jedno. Zbylá místa nejsou vyřešena nebo nesplňují požadavky.

5 ZÁVĚR

Po celkovém zhodnocení trasy lze předpokládat, že místa, která byla rekonstruována v posledních letech se více přibližují požadavkům platné legislativy. Ze 118 sledovaných míst křížení pěší a automobilové dopravy jich ale splňuje požadavky pouze 37 splňuje bezvýhradně všechny požadavky. Nejhůře bylo klasifikováno provedení míst pro přecházení, která vyhovovala pouze v jednom případě, a to ještě s výhradami. Požadavek sníženého obrubníku na výšku maximálně 20 mm byl ve většině dodržen.

Poděkování
Příspěvek byl zpracován v rámci Studentské grantové soutěže Vysoké školy báňské - Technické univerzity Ostrava, jako výstup z projektu SGS SP2017/153 Analýza aspektů bezbariérového užívání veřejného prostoru.

Použitá literatura

1. Vyhláška č. 398/2009 Sb. o obecných technických požadavcích zabezpečujících bezbariérové užívání staveb. Vyhláška svou účinností ruší vyhlášku č. 369/2001 Sb. a vyhlášku 492/2006 Sb.
2. ZDAŘILOVÁ, Renata. Bezbariérové užívání staveb: základní principy přístupnosti v městském inženýrství. Ostrava: VŠB - Technická univerzita Ostrava, 2012. ISBN 978-80-248-2825-1.

Kontaktní údaje

Ing. Petra Kocurová
VŠB - Technická univerzita Ostrava, Fakulta stavební, Katedra městského inženýrství
Ludvíka Podéště 1875/17, 708 33 Ostrava - Poruba
Tel: +420 597 321 929
email: petra.kocurova@vsb.cz

Mgr. Ing. Alžběta Bílková
VŠB - Technická univerzita Ostrava, Fakulta stavební, Katedra městského inženýrství
Ludvíka Podéště 1875/17, 708 33 Ostrava - Poruba
email: alzbeta.bilkova@vsb.cz

Ing. Kateřina Kocurová
VŠB - Technická univerzita Ostrava, Fakulta ekonomická, Katedra účetnictví a daní
Sokolská třída 2416/33, 702 00 Moravská Ostrava a Přívoz
email: katerina.kocurova@vsb.cz

MATEMATICKÝ MODEL PRO VÝPOČET SILOVÝCH POMĚRŮ V KINEMATICKÝCH VAZBÁCH ZUBOVÉHO ČERPADLA

MATHEMATICAL MODEL FOR CALCULATION OF STRENGTH IN KINEMATIC CONNECTIONS OF THE GEAR PUMP

Petr Hrubý, Jan Procházka, Pavla Židková

Abstrakt

V návaznosti na řešení grantu TA 04010579 Technologické agentury České republiky je řešena problematika počítačové podpory dimenzování součástí zubového čerpadla. Úloha je řešena na základě požadavku firemní sféry. Základní úlohou procesu dimenzování je stanovení vnějších akčních, tj. pracovních a hnacích silových účinků a vnitřních a vnějších reakcí v kinematických vazbách mechanismu. V článku je navržen diskrétní fyzikální model hybridního systému, tvořeného mechanismem s ozubenými koly a tekutou fází. Je formulován matematický model systému a je provedeno jeho analytické a numerické řešení. Model je tvořen soustavou lineárních nehomogenních rovnic. Pro oba případy počtářského řešení bylo v aplikacích EXCEL a OCTAVE vytvořeno a odladěno programové vybavení, které umožní konstruktérovi rychlé a uživatelsky příjemné opakované nasazení aplikace v procesu dimenzování součásti.

Klíčová slova: *zubové čerpadlo, matematický model, kinematické vazby, silové účinky*

Abstract

In connection with the grant TA 04010579 of the Technology Agency of the Czech Republic is solved the problem of computer support of the dimensioning of gear pump parts. The task is solved based on the requirements of the business sphere. The basic task of the dimensioning process is to determine the external action, i. e. the working and driving force effects and the internal and external reactions in the kinematic bonds of the mechanism. In the paper, a discrete physical model of a hybrid system consisting of a gear and liquid phase mechanism is proposed. The mathematical model of the system is formulated and its analytical and numerical solution is performed. The model consists of a system of linear non-homogeneous equations. For both cases of a numerical solution, software was created and debugged in the EXCEL and OCTAVE applications. This will allow the designer to quickly and user-friendly repeated application deployment in the component dimensioning process.

Key words: *gear pump, mathematical model, kinematic bonds, force effects*

1 ÚVOD

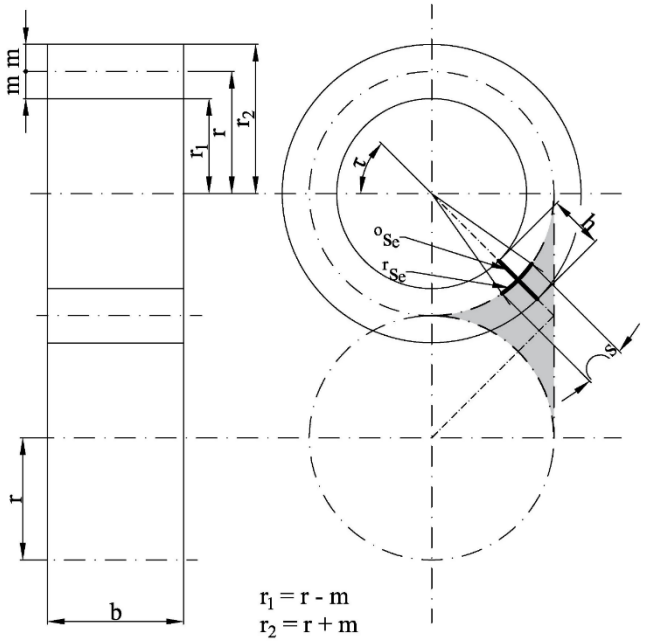
Základní úlohou procesu dimenzování částí mechanismu je stanovení vnějších akčních, tj. pracovních a hnacích silových účinků a vnitřních a vnějších reakcí v kinematických vazbách mechanismu. V našem případě (uvažujeme jednostupňové čerpadlo s přímými zuby) se zaměříme na stanovení vnitřních reakcí v ozubení, vnějších reakcí v ložiscích a hnacího krouticího momentu na vstupním hřídeli. Tento hnací moment, což je zapotřebí zdůraznit zejména ve vztahu ke grafickému řešení, představuje vektor momentu dvojice sil. Zmíněné silové účinky jsou vyvolány akční pracovní silou, respektive jejími složkami, kterou stanovíme ze znalosti pracovního tlaku na výstupu z čerpadla. Členy mechanismu považujeme za dokonale tuhé, včetně zubů ozubených kol a kluzných částí ložisek, kapalinu

za dokonale nestlačitelnou. V této fázi řešení tedy představuje ozubení ideální obecnou kinematickou dvojici a ložiska představují rotační kinematické dvojice. Vzhledem k symetrii mechanizmu budeme v první fázi řešit problém jako rovinnou úlohu. Matematický model budeme sestavovat prostředky vektorové mechaniky. Metodou myšleného řezu uvolníme jednotlivé členy mechanismu a odstraněné reálné vazby nahradíme reakčními silovými účinky. Pro vzniklé vektorové silové pole sestavíme podmínky rovnováhy, jehož řešením získáme hledané akční a reakční, vnitřní a vnější silové účinky, působící na jednotlivé členy mechanismu. Úloha vede k řešení soustavy lineárních nehomogenních algebraických rovnic. Úlohu řešíme analyticky v uzavřeném tvaru, provedeme rovněž numerické maticové řešení a kontrolní grafické řešení. Pro oba případy počtářského řešení bude vypracováno programové vybavení, umožňující konstruktérovi rychlé a uživatelsky příjemné opakované nasazení aplikace v procesu dimenzování součásti.

2 STANOVENÍ VNĚJŠÍCH PRACOVNÍCH SIL

2.1 Ekvivalentní aktivní plochy

Při tvorbě fyzikálního modelu nahradíme reálné plochy ohraničující kapalné těleso uzavřené v aktivní tlakové zóně, viz obr. 1, fiktivními ekvivalentními aktivními plochami, které generují odpovídající složky akčních pracovních sil, tj. radiální složku akční pracovní síly a obvodovou složku akční pracovní síly. Ekvivalentní plochu na roztečném válci pro radiální sílu stanovíme podle vztahu (1). Ekvivalentní plochu pro obvodovou sílu stanovíme podle vztahu (2). Odvozujeme ji od jmenovitého profilu (J-profilu) evolventního ozubení. Výšku h plochy pro obvodovou sílu uvažujeme h = 2 m, délku oblouku s na roztečné kružnici uvažujeme rovnu polovině rozteče $s = \frac{t}{2} = \frac{\pi m}{2}$.



Obr. č. 1: Ekvivalentní aktivní plochy

$$ {}^{r}S_e = j \frac{\pi m}{2} b, \tag{1} $$

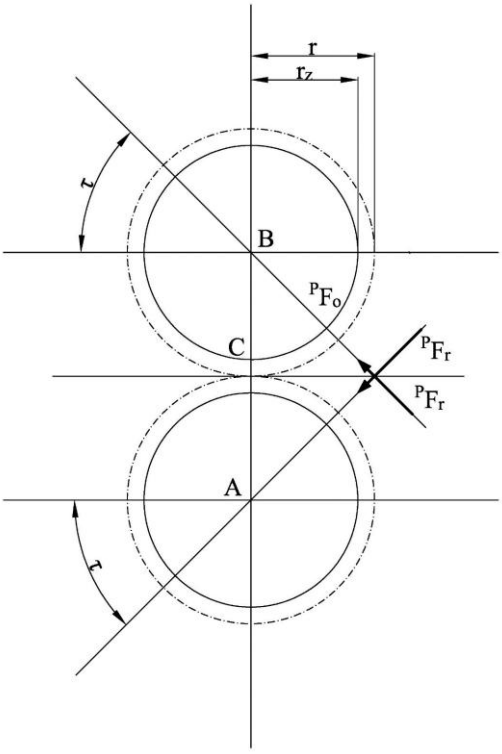
$$ {}^{o}S_e = i\, 2\, m\, b, \tag{2} $$

$$^{r}S = s\ b = \frac{1}{2}\pi\ m\ b, \tag{3}$$

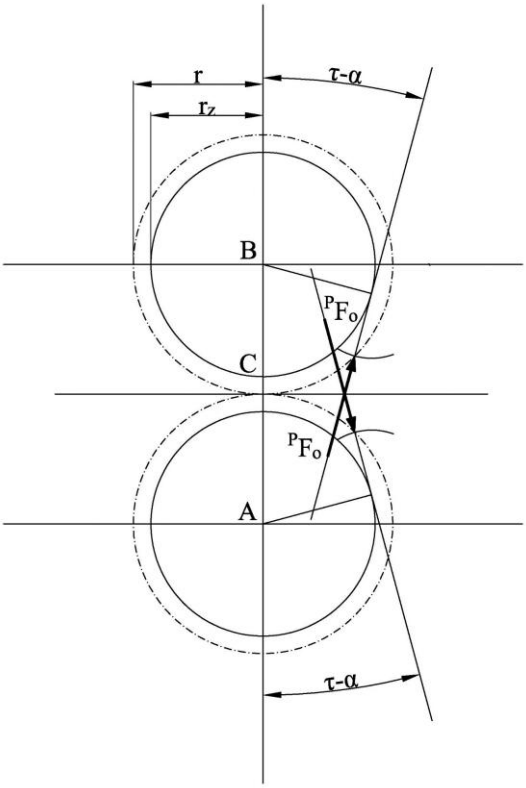
$$^{o}S = h\ b = 2\ m\ b. \tag{4}$$

2.2 Vnější akční pracovní síly

Vzhledem k symetrii řešíme úlohu jako rovinný problém. Tlakové pole nahrazujeme spojitým zatížením, jehož účinek nahradíme diskrétními silami v bodě (průsečík roztečné kružnice a těžnice aktivní oblasti příslušného kola). Těžnice je určena úhlem tlaku τ. Viz obr.2. Nositelka radiální složky akční pracovní síly $^{P}F_{r}$ je určena tímto bodem a bodem na ose otáčení. Nositelka obvodové složky $^{P}F_{o}$ akční pracovní síly tímto bodem rovněž prochází a je současně tečnou základní kružnice. Základní kružnice je evolutou evolventy, a nutně se jí tedy dotýkají jak elementární vektory spojitého tlakového obtížení, tak jejich výslednice. Velikosti složek akční pracovní síly na příslušný člen stanovíme podle vztahů (5), (6).



Obr. č. 2: Ekvivalentní pracovní síla radiální



Obr. č. 3: Ekvivalentní pracovní síla obvodová

$$^{P}F_{r} = p\ \ ^{r}S_{e} = j\ \frac{\pi\ m}{2}\ b\ p, \tag{5}$$

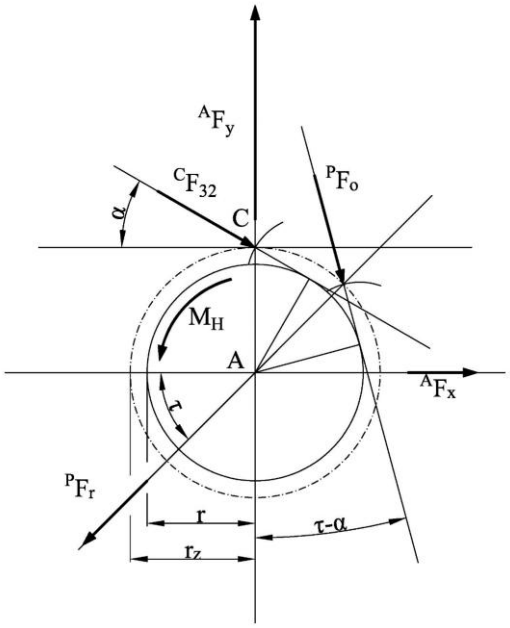
$$^{P}F_{o} = p\ \ ^{o}S_{e} = i\ 2\ m\ b\ p. \tag{6}$$

Mezi vnější akční pracovní síly zahrnujeme rovněž hledaný hnací moment dvojice sil M_H na vstupním hřídeli. Viz obr. č. 4.

3 FYZIKÁLNĚ MATEMATICKÝ MODEL PROBLÉMU

Pro sestavení matematického modelu použijeme metodu myšleného řezu, respektive metodu uvolňování. Vektorové silové pole působící na uvolněný vstupní hřídel je znázorněno na obr.

4, na výstupní hřídel v obr. 5. Z podmínek rovnováhy obdržíme rovnice (7) … (12). Podle principu akce a reakce obdržíme rovnici (13). Z geometrie evolventy (obr. 4) plyne rovnice (14). Rovnice představují soustavu lineárních nehomogenních algebraických rovnic.

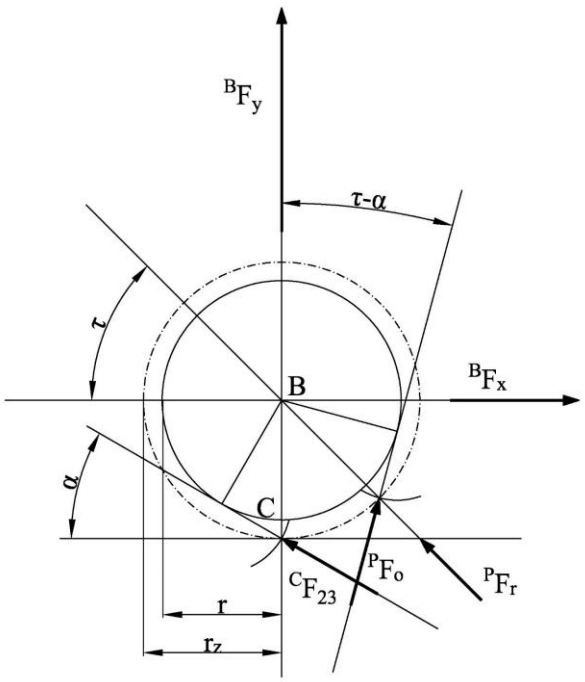


Obr. č. 4: Silové působení na hnacím kole

$$ {}^{A}F_x + {}^{C}F_{32}\cos\alpha - {}^{P}F_r\cos\tau + {}^{P}F_o\sin(\tau-\alpha) = 0, \tag{7} $$

$$ {}^{A}F_y - {}^{C}F_{32}\sin\alpha - {}^{P}F_r\sin\tau - {}^{P}F_o\cos(\tau-\alpha) = 0, \tag{8} $$

$$ M_H - {}^{C}F_{32}\,r_z - {}^{P}F_o r_z = 0. \tag{9} $$



Obr. č. 5: Silové působení na hnaném kole

$${}^{B}F_x - {}^{P}F_r \cos\tau + {}^{P}F_o \sin(\tau - \alpha) - {}^{C}F_{23} \cos\alpha = 0, \quad (10)$$

$${}^{B}F_y + {}^{P}F_r \sin\tau + {}^{P}F_o \cos(\tau - \alpha) + {}^{C}F_{23} \sin\alpha = 0, \quad (11)$$

$${}^{P}F_o r_z - {}^{C}F_{23}\, r_z = 0. \quad (12)$$

$${}^{C}F_{23} = {}^{C}F_{32}, \quad (13)$$

$$r_z = r \cos\alpha = \frac{zm\cos\alpha}{2}. \quad (14)$$

4 ŘEŠENÍ MATEMATICKÉHO MODELU

4.1 Vstupní veličiny matematického modelu problému

α ... úhel záběru
τ ... úhel tlaku
z ... počet zubů kola
m ... modul ozubení
b ... šířka ozubení
i ... počet aktivních zubů
j ... počet aktivních zubových mezer
p ... tlak na výstupu čerpadla

4.2 Výstupní veličiny matematického modelu problému

${}^{P}F_r$ ... ekvivalentní pracovní radiální síla
${}^{P}F_o$ ... ekvivalentní pracovní síla obvodová
M_H ... moment hnací
${}^{C}F$ ... reakce v dotyku zubů – obecná kinematické dvojice
${}^{A}F_x$, ${}^{A}F_y$ ... složky reakce v rotační kinematické dvojici v bodě A
${}^{B}F_x$, ${}^{B}F_y$ ... složky reakce v rotační kinematické dvojici v bodě B

4.3 Analytické řešení matematického modelu

Analytickým řešením rovnic (7) … (12) získáme neznámé vnější a vnitřní akční a reakční silové účinky ve tvaru (15), kde jsme zavedli pomocné parametry $q_1 \ldots q_6$, podle vztahů (16), a P_1, P_2 určené výrazy (17).

$$\begin{aligned} M_H &= q_1 + q_4\, r_z, \\ {}^{A}F_x &= q_2 - q_4 \cos\alpha, \\ {}^{A}F_y &= q_3 + q_4 \sin\alpha, \\ {}^{C}F &= q_4, \\ {}^{B}F_x &= q_5 + q_4 \cos\alpha, \end{aligned} \quad (15)$$

$${}^{B}F_y = q_6 - q_4 \sin \alpha,$$

kde

$$\begin{aligned} q_1 &= P_2\, r_z, \\ q_2 &= P_1 \cos \tau - P_2 \sin(\tau - \alpha), \\ q_3 &= P_1 \sin \tau + P_2 \cos(\tau - \alpha), \\ q_4 &= P_2, \\ q_5 &= P_1 \cos \tau - P_2 \sin(\tau - \alpha), \\ q_6 &= -P_1 \sin \tau - P_2 \cos(\tau - \alpha), \end{aligned} \tag{16}$$

přičemž

$$\begin{aligned} P_1 &= j \frac{\pi\, m}{2}\, b\, p, \\ P_2 &= r\, 2\, m\, b\, p, \end{aligned} \tag{17}$$

5 MATEMATICKÝ MODEL V MATICOVÉM TVARU

Matematický model problému přepíšeme do maticového tvaru

$$\mathbf{K} \cdot \mathbf{L} = \mathbf{P}, \tag{18}$$

kde

$$\mathbf{L} = \begin{bmatrix} L_1 \\ L_2 \\ L_3 \\ L_4 \\ L_5 \\ L_6 \end{bmatrix} \tag{19}$$

je vektor neznámých,

$$\mathbf{P} = \begin{bmatrix} P_1 \cos \tau - P_2 \sin(\tau - \alpha) \\ P_1 \sin \tau + P_2 \cos(\tau - \alpha) \\ P_2 \cdot r_z \\ P_1 \sin \tau - P_2 \sin(\tau - \alpha) \\ -P_1 \sin \tau - P_2 \cos(\tau - \alpha) \\ P_2 \cdot r_z \end{bmatrix} \tag{20}$$

je vektor pravých stran,

$$\mathbf{K} = \begin{bmatrix} 0 & 1 & 0 & \cos\alpha & 0 & 0 \\ 0 & 0 & 1 & -\sin\alpha & 0 & 0 \\ 1 & 0 & 0 & -r_z & 0 & 0 \\ 0 & 0 & 0 & -\cos\alpha & 1 & 0 \\ 0 & 0 & 0 & \sin\alpha & 0 & 1 \\ 0 & 0 & 0 & r_z & 0 & 0 \end{bmatrix} \tag{21}$$

je matice soustavy.
Vztah vektoru neznámých s hledanými silovými účinky je dán rovnicemi (22).

$$L_1 = M_H,\ L_2 = {}^{A}F_x,\ L_3 = {}^{A}F_y,\ L_4 = {}^{C}F,\ L_5 = {}^{B}F_x,\\ L_6 = {}^{B}F_y,\ P_1 = {}^{P}F_r,\ P_2 = {}^{P}F_o. \tag{22}$$

6 NUMERICKÉ OVĚŘENÍ MODELU

6.1 Testovací parametry modelu

$$\begin{aligned} &m = 2\ [mm],\\ &b = 30\ [mm],\\ &j = 2,\\ &i = 2,\\ &\alpha = 30\ °,\\ &\tau = 45\ °,\\ &p = 30\ MPa,\\ &z = 9 \end{aligned} \tag{23}$$

6.2 Výsledky analytického řešení

Výpočet reakcí a hnacího momentu ozubeného čerpadla

zadej hodnoty - proměnné	**vkládej v základních jednotkách**		
popis	**značka**	**hodnota**	**jednotky**
počet zubových mezer	j	2	-
počet zubů	i	2	-
modul	m	0,002	m
šířka ozubení	b	0,03	m
tlak	p	30 000 000	Pa
úhel záběru	α	30	°
úhel tlaku	τ	45	°
poloměr roztečné kružnice	r	0,009	m

mezivýpočet			
popis	**značka**	**hodnota**	**jednotky**
ekvivalentní pracovní síla radiální	${}^{p}F_r$	5654,9	N
ekvivalentní pracovní síla obvodová	${}^{p}F_o$	7200	N

reakční síla v kole A osa x	$^{A}F_x$	-4100,3	N
reakční síla v kole A osa y	$^{A}F_y$	14553,3	N
reakční síla v kole B osa x	$^{B}F_x$	8370,5	N
reakční síla v kole B osa y	$^{B}F_y$	-14553,3	N
rakce v dotyku zubů $^{C}F_{32}=^{C}F_{23}$	$^{C}F_{32}=^{C}F_{23}$	7200	N
poloměr základní kružnice	r_z	0,00779	m

výpočet			
popis	**značka**	**hodnota**	**jednotky**
reakční síla v kole A	^{A}F	15119,8	N
reakční síla v kole B	^{B}F	16788,8	N
moment k ose Z	M_H	112,2	Nm

7 ZÁVĚR

Článek se zabývá sestavením matematického modelu pro řešení základní úlohy procesu dimenzování částí mechanismu, tj. je stanovení vnějších akčních pracovních a hnacích silových účinků a vnitřních a vnějších reakcí v kinematických vazbách mechanismu. Jsou stanoveny vnitřní reakce v ozubení, vnější reakce v ložiscích a hnací krouticí moment na vstupním hřídeli. Zmíněné silové účinky jsou vyvolány akční pracovní silou, respektive jejími složkami, kterou stanovíme ze znalosti pracovního tlaku na výstupu z čerpadla a geometrie kapalného tělesa ve výstupní části čerpadla. Členy mechanismu považujeme za dokonale tuhé, včetně zubů ozubených kol a kluzných částí ložisek, kapalinu za dokonale nestlačitelnou. Evolventní ozubení modelujeme jako ideální obecnou kinematickou dvojici, ložiska jako rotační kinematické dvojice. Vzhledem k symetrii mechanizmu řešíme popsaný problém jako rovinnou úlohu. Matematický model je sestaven prostředky vektorové mechaniky. Metodou myšleného řezu uvolníme jednotlivé členy mechanismu a odstraněné reálné vazby nahradili reakčními silovými účinky. Pro vzniklá vektorová silová pole je z podmínek rovnováhy formulován matematický model, jehož řešením obdržíme hledané akční a reakční, vnitřní a vnější silové účinky, působící na jednotlivé členy mechanismu. Úloha vede k řešení soustavy lineárních nehomogenních algebraických rovnic. Úlohu jsme řešili jednak analyticky v uzavřeném tvaru, dále bylo provedeno numerické maticové řešení, posléze pak kontrolní grafické řešení. Pro oba případy počtářského řešení bylo v aplikacích EXCEL a OCTAVE vytvořeno a odladěno programové vybavení, které umožní uživateli rychlé a uživatelsky příjemné opakované nasazení aplikace v procesu dimenzování součásti.

Použitá literatura

1. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. Metoda přenosových matic v aplikaci na řešení otáčkových rezonancí jednorozměrného lineárního kontinua. In MMK 2015 : sborník příspěvků. 1. vyd. Hradec Králové: Magnanimitas, 2015. s. 2575-2582, 8 s. ISBN 978-80-87952-12-2.
2. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. Fyzikální a matematické modely hřídelí v pohonech s hookeovými klouby. In MMK 2015 : sborník příspěvků. 1. vyd. Hradec Králové: Magnanimitas, 2015. s. 2546-2554, 9 s. ISBN 978-80-87952-12-2.
3. HRUBÝ, Petr, Ján KMEC, Daniel KUČERKA a Pavla ŽIDKOVÁ. Dimenzování svařovaných součástí rotujících členů mechanismů v pohonech strojů. In MMK

2015: sborník příspěvků. 1. vyd. Hradec Králové: Magnanimitas, 2015. s. 2592-2601, 10 s. ISBN 978-80-87952-12-2.
4. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. Aplikace metody konečných prvků při stanovení modálních a spektrálních vlastností ohybových kmitů kloubového hřídele. In MMK 2015 : sborník příspěvků. 1. vyd. Hradec Králové: Magnanimitas, 2015. s. 2555-2564, 12 s. ISBN 978-80-87952-12-2.
5. HRUBÝ, Petr, Lenka KLEISNEROVÁ a Pavla ŽIDKOVÁ. Analýza ohybových kmitů kinematicky buzeného kloubového hřídele. In MMK 2015 : sborník příspěvků. 1. vyd. Hradec Králové: Magnanimitas, 2015. s. 2565-2574, 15 s. ISBN 978-80-87952-12-2.
6. HRUBÝ, Petr a Pavla ŽIDKOVÁ. TRANSFER MATRICES DERIVATION OF BASIC ELEMENTS OF PROPSHAFTS DYNAMIC MODELS. In Michael McGreevy, Robert Rita. CER Comparative European Research 2016. London: Sciemcee Publishing, 2016. s. 126-130, 5 s. ISBN 978-0-9935191-3-0.
7. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. The transfer-matrix method in the application for an one-dimensional linear continuum speed resonance. In Michael McGreevy, Robert Rita. Proceedings of the 5th biannual CER Comparative European Research Conference : International scientific conference for Ph.D. students of EU countries. London: Sciemcee Publishing, 2016. s. 141-144, 4 s. ISBN 978-0-9928772-9-3.
8. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. Physical and mathematical models of shafts in drives with Hook´s joints. In Michael McGreevy, Robert Rita. Proceedings of the 5th biannual CER Comparative European Research Conference : International scientific conference for Ph.D. students of EU countries. London: Sciemcee Publishing, 2016. s. 136-140, 5 s. ISBN 978-0-9928772-9-3.
9. HRUBÝ, Petr a Pavla ŽIDKOVÁ. OTÁČKOVÉ REZONANCE VÁZANÉHO SYSTÉMU HŘÍDELÍ V POHONECH S HOOKEOVÝMI KLOUBY. In Magnanimitas. MMK 2016: International Masaryk Conference for Ph.D. Students and Young Researchers. Hradec Králové: Magnanimitas, 2016. s. 1824-1830, 7 s. ISBN 978-80-87952-17-7.
10. HRUBÝ, Petr, Miroslav GOMBÁR, Ján KMEC a Pavla ŽIDKOVÁ. NÁVRH SPOJENÍ NÁBOJE S HŘÍDELEM POMOCÍ PŘESAHU. In Magnanimitas. MMK 2016: Mezinárodní Masarykova konference pro doktorandy a mladé vědecké pracovníky. Hradec Králové: MAGNANIMITAS, 2016. s. 1722-1730, 9 s. ISBN 978-80-87952-17-7.
11. HRUBÝ, Petr a Pavla ŽIDKOVÁ. METODY VÝPOČTU PARAMETRŮ DYNAMICKÝCH MODELŮ HŘÍDELÍ V POHONECH S HOOKEOVÝMI KLOUBY. In Magnanimitas. MMK 2016: International Masaryk Conference for Ph.D. Students and Young Researchers. Hradec Králové: Magnanimitas, 2016. s. 1839-1845, 7 s. ISBN 978-80-87952-17-7.
12. HRUBÝ, Petr a Pavla ŽIDKOVÁ. MATHEMATICAL MODEL OF ONE-DIMENSIONAL CONTINUUM IN STATE OF COMBINED BENDING-GYRATORY VIBRATION. In Michael McGreevy, Robert Rita. CER Comparative European Research 2016. London: Sciemcee Publishing, 2016. s. 120-125, 6 s. ISBN 978-0-9935191-3-0.
13. HRUBÝ, Petr a Pavla ŽIDKOVÁ. MATEMATICKÝ MODEL JEDNOROZMĚRNÉHO KONTINUA VE STAVU KOMBINOVANÉHO OHYBOVĚ-KROUŽIVÉHO KMITÁNÍ. In Magnanimitas. MMK 2016: International Masaryk Conference for Ph.D. Students and Young Researchers. Hradec Králové: Magnanimitas, 2016. s. 1804-1813, 10 s. ISBN 978-80-87952-17-7.

14. HRUBÝ, Petr a Pavla ŽIDKOVÁ. DYNAMICKÁ NAPĚŤOVÁ A DEFORMAČNÍ ANALÝZA HŘÍDELÍ V POHONECH S HOOKEOVÝMI KLOUBY. In Magnanimitas. MMK 2016: International Masaryk Conference for Ph.D. Students and Young Researchers. Hradec Králové: Magnanimitas, 2016. s. 1832-1837, 6 s. ISBN 978-80-87952-17-7.
15. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. CRITICAL ANGULAR VELOCITIES OF CARDAN SHAFT BENDING-GYRATORY VIBRATION. In Michael McGreevy, Robert Rita. CER Comparative European Research 2016. London: Sciemcee Publishing, 2016. s. 131-135, 5 s. ISBN 978-0-9935191-3-0.
16. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. CARDAN SHAFT STEADY STATE RESPONSE ON ROTATING TORQUE EXCITATION. In Michael McGreevy, Robert Rita. CER Comparative European Research 2016. London: Sciemcee Publishing, 2016. s. 136-140, 5 s. ISBN 978-0-9935191-3-0.
17. HRUBÝ, Petr a Pavla ŽIDKOVÁ. BENDING OSCILLATIONS ANALYSIS OF KINEMATIC EXCITATED PROPSHAFT. In Michael McGreevy, Robert Rita. CER Comparative European Research 2016. London: Sciemcee Publishing, 2016. s. 141-145, 5 s. ISBN 978-0-9935191-3-0.
18. HRUBÝ, Petr, Zdeněk HLAVÁČ a Pavla ŽIDKOVÁ. Application of the finite element method in determination of modal and spectral properties of propeller shaft´s bending vibrations. In Michael McGreevy, Robert Rita. Proceedings of the 5th biannual CER Comparative European Research Conference : International scientific conference for Ph.D. students of EU countries. London: Sciemcee Publishing, 2016. s. 132-135, 4 s. ISBN 978-0-9928772-9-3.
19. HRUBÝ, Petr a Pavla ŽIDKOVÁ. Speed resonances of coupled shafts in drives with Hooke's joints. In Michael McGreevy, Robert Rita. CER Comparative European Research 2017. London: Sciemcee Publishing, 2017. s. 79-82, 4 s. ISBN 978-0-9935191-4-7.
20. HRUBÝ, Petr a Pavla ŽIDKOVÁ. Dynamic stress-strain analysis of shafts in drives with Hooke's joints. In Michael McGreevy, Robert Rita. CER Comparative European Research 2017. London: Sciemcee Publishing, 2017. s. 83-86, 4 s. ISBN 978-0-9935191-4-7.
21. HRUBÝ, Petr a Pavla ŽIDKOVÁ. Calculation methods of parametrs of dynamic models of shafts in drives with hooke's joints. In Michael McGreevy, Robert Rita. CER Comparative European Research 2017. London: Sciemcee Publishing, 2017. s. 87-90, 4 s. ISBN 978-0-9935191-4-7.
22. ŠEJVL, M. Theorie a výpočty ozubených kol. SNTL, Praha. 1957. 556 s.
23. ŠREJTR, J., BRUHA, O. Technická mechanika – Statika. SNTL, Praha, 1970. 336 s.

Kontaktní údaje

Doc. Ing. Petr Hrubý, CSc.
Vysoká škola technická a ekonomická, Katedra strojírenství
Okružní 10, 37001 České Budějovice
Tel: 736228787
E-mail: dochruby@gmail.com

USE OF NATURAL VENTILATION IN DOUBLE TRANSPARENT FAÇADES DURING EXTREME SEASON BOUNDARY

Kristýna Valoušková

Abstract

The primary advantage of double transparent façades is their ability to naturally ventilate multi-storey buildings. The use of these façades influences the thermal comfort inside a building. This study examines the difference between single and double transparent façades and whether the later has a positive impact on the thermal comfort. A CFD (Computational Fluid Dynamics) simplified model of an office room in 25th floor with a glass façade orientated to the south shows a positive influence on thermal comfort when a double façade is used. Comparing variants are with the highest dry-bulb temperature, the lowest dry-bulb temperature and the highest wind speed. Main comparing values inside the office are air temperature, airflow velocity, PMV (Predicted Mean Vote) and PPD (Predicted Percentage of Dissatisfied).

Keywords: *airflow velocity, double transparent façade, natural ventilation, PMV, PPD, thermal comfort*

1 INTRODUCTION

The use of double-skin façades is drawing increasing attention for reducing environmental impact while increasing the quality of internal conditions in office buildings. It provides many opportunities to save energy while creating a pleasant indoor environment. Double-skin façades are already a common feature of architectural competitions in Europe [1]

The air in a double-skin façade cavity is heated by solar radiation. Stack effect enables the discharge of warm air to the outside and the intake of refresh cooler air. During warm summer days, air flows out from vent in the façade cavity and significantly reduces heat gain. However, during the winter, the openings are closed and the cavity acts as a buffer zone. In mild seasons, stack effect occurring in the intermediate space provides a driving force to enhance natural ventilation for the whole building [2].

The most important aspects of natural ventilation are air buoyancy, wind speed, wind direction and temperature gradient between the building's interior and exterior ween the building's interior and exterior [3.4].

Previous research results demonstrate that the best alternative to façade glazing is a double transparent façade with single low emissivity glazing as the outer façade and double argon-filled low emissivity glazing as the inner façade. The optimal cavity size is 600 mm in width, which provides the most balanced heat gains and losses compared with other alternatives [5].

2 BACKGROUND AND THEORY

1.1 Standards for working environment in the Czech Republic and North America

In the Czech Republic, the requirements for working environments are stipulated in Government Regulation No. 93/2012 Sb. [6]. The temperature is a function of global temperature $\boldsymbol{T_g}$ or operative temperature $\boldsymbol{T_o}$. Indoor microclimate requirements for working environments are shown in Tables 1 and 2.

Work level	M [W/m^2]	$T_{o,min}$ or $T_{g,min}$ [°C] (0.5 clo)	$T_{o,max}$ or $T_{g,max}$ [°C] (1 clo)	v_a [m/s]	Rh [%]
I	≤ 80	20	27	0,01 to 0,2	30 to 70
IIa	81 to 150	18	26		

Table 1 *Microclimate standards for the workplace class I and IIa with natural or mechanical ventilation in Czech Republic [6]*

	$T_{i, min}$ [°C]	Rh [%]	v_a [m/s]
Limits	23 to 28 (summer) 20 to 25.5 (winter)	30 to 65	≤ 25
Reference	ASHRAE Standard 55-2013, ISO 7730	ASHRAE Standard 55-2013, ISO 7730	WHO, ISO 7730

Table 2 *Standards and directives for indoor environment quality for North America [7]*

1.2 Standards for working environment in the Czech Republic and North America

The European standard ČSN EN ISO 7730, "The Ergonomics of the Thermal Environment" [8] specifies the predicted mean vote (PMV) and predicted percentage dissatisfied (PPD) based on heat balance equations and empirical studies about skin temperature to define comfort [6]. Standard thermal comfort surveys ask subjects about their thermal sensation on a 7-point scale with categories ranging from -3 (*cold*) to +3 (*hot*). Zero is the ideal value, representing thermal neutrality, and the comfort zone is defined by the combinations of the six parameters for which the PMV is within the recommended limits (-0.5 < PMV < +0.5).

PMV	- 3	- 2	- 1	0	+ 1	+ 2	+ 3
Thermal feeling	cold	cool	slightly cool	neutral	slightly warm	warm	hot

Table 3 *Seven-point scale of thermal sensation [8]*

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 55-2013 uses the PMV model to set the requirement for indoor thermal conditions. It requires that at least 80 % of the occupants should be satisfied [7].

3 METHOLOGY

In this study, the double transparent façade has been designed using DesignBuilder software [9]. Three major factors have been taken into consideration during the modelling process: temperature, heat gains and flow rates, all of which have been calculated using EnergyPlus [10] calculation core. The result has been used later as an input boundary condition for CFD based on exact time and date of simulation.

3.1 CFD (Computational Fluid Dynamics) simulation

Temperatures of the interior structure surfaces and rate of airflow into the office through the openings were determined from EnergyPlus calculations, taking into account the exterior climate's infiltration of the structure. The k-Ɛ turbulent model has been used for the CFD

simulation. The maximum number of iterations has been limited to 5000; most of the simulations have been done within 3500 iterations. Grid size was set to 0.1 m with tolerance of 0.03 m.

3.2 Description of simplified model

This study focuses on simulations of a simplified office room situated on the 25th floor of an office building (*Figure 1*). The room's dimensions were 4 × 7 m, with a glass façade oriented on the south. A single transparent façade with double glazing (double low emissivity clear glass 6/12 mm, U-value 1.493 W/m^{2}K) was compared to a double transparent façade with single glazing (single low emissivity clear glass 6 mm, U-value 3.779 W/m^{2}K) on the outer façade and double glazing (double low emissivity clear glass 6/13 mm, U-value 1.493 W/m^{2}K) [11] on the inner façade. The simulations were performed with an opening size of 8 % and used natural ventilation based on buoyancy and the boundary conditions from EnergyPlus.

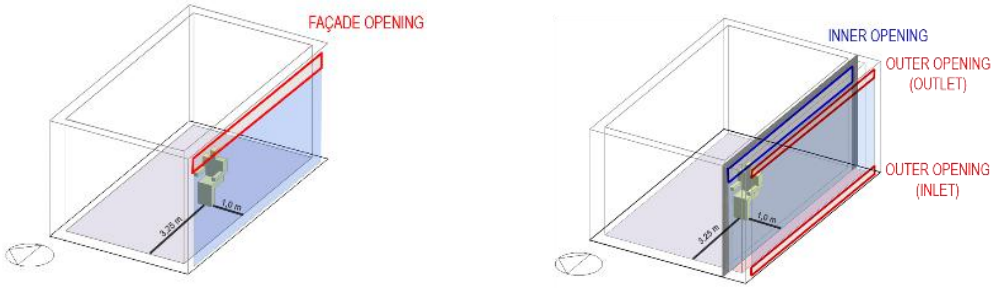


Figure 1 *Simplified model of single and double transparent façade*

3.3 Boundary conditions

The calculations were performed in 3 variations specified from Prague-Ruzyně, Czech Republic. The model used a sitting occupant to represent a standard office worker. The boundary conditions for different variations are shown in *Table 4*.

	Rh_e [%]	**CL [clo]**	**MR [met]**	**T_{ia} [°C]**	**w_d [°]**	**v_w [m/s]**	**SA [°]**	**SAl [°]**
VARIATION No. 1 (8.8.2002 17.00)	34.29	0.57	1.00	**31.8**	137.5	1.75	264.74	25.81
VARIATION No. 2 (26.3.2002 12.00)	11.22	0.74	1.00	**4.7**	170.0	3.60	172.04	41.46
VARIATION No. 3 (18.7.2002 16.00)	28.65	0.61	1.00	16.4	310.0	**11.45**	225.89	38.91

Table 4 *Site data for simulated variations (according to EnergyPlus)*

4 RESULTS AND DISCUSSION

This section compares behaviour of a single transparent façade (STF) and a double transparent façade (DTF) for different variations with different boundary conditions. Indoor relative humidity was recalculated based on exterior and interior air temperature and outdoor relative humidity. Occupant's clothing level was set depending on exterior air temperature, and the metabolic rate was set to 1.3 met, which represents seated work condition.

4.1 Simulation based on maximum values of outdoor boundaries during summer and spring season

Based on different studies [12, 13], the outside dry-bulb temperature and wind speed are two of the most important parameters, and their effects on natural ventilation are described in the following subsections. Three alternatives with extreme boundary conditions have been defined.

- The highest outside dry-bulb temperature during summer (31.8°C) – variation No.1
- The lowest outside dry-bulb temperature during spring (4.7°C) – variation No.2
- The highest wind speed during spring and summer (11.45 m/s) – variation No.3

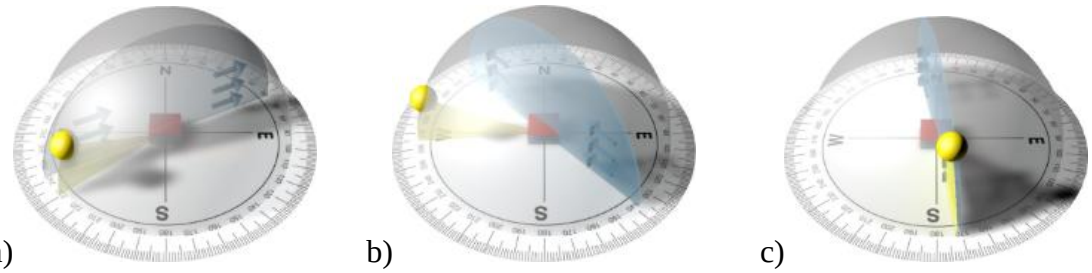


Figure 2 *Site data for the variations No.1 (a), No.2 (b), No.3 (c) – (yellow– solar altitude/azimuth, blue – wind direction, red – office room)*

4.2 The highest outside dry bulb temperature during summer season

Table 5 compares variables obtained using DesignBuilder simulation software [9]. The main boundary condition is an outside dry-bulb temperature of 31.77 °C on August 8, 2002. Highlighted variables do not comply with standards for the Czech Republic [6] and North America [7].

TYPE OF FAÇADE			**STF** (single transparent façade)	**DTF** (double transparent façade)
Interior relative humidity [%]			**29.15**	32.96
Boundaries for CFD simulation (based on calculation of Energy Plus)	**V_a [m^3/s]**	office	0.073	0.072
		cavity	-	0.203
	T_a [°C]	office	**34.77**	**32.87**
		cavity	**-**	**32.17**
	T_o [°C]	office	**35.17**	**32.51**
		cavity	-	**32.77**
Results based on CFD simulation	**v_a [m/s]**	range / limits	0.001 → 0.30	0.001 → 0.19
		--- 1.1 m	0.08	0.12
		--- 0.1 m	**0.22**	0.04
	LMA [s]	range / limits	0.00 → 716.0	0.00 → 1933
		--- close to occupant	650.93	1405.3
	PMV	range / limits	2.61 → 9.50	2.10 → 2.60
		--- occupant's ankles (0.1 m)	9.50	2.23
		--- occupant's head	9.50	2.23

		(1.1 m)		
	PPD [%]	range / limits	95.5 → 100	80.9 → 95.2
		--- close to occupant	**100**	**86.17**

Table 5 *Comparing values for VARIATION No.1 (8.8.2002, 17:00) –* ***31.77°C***

It is evident that most of the values in *Table 5* do not comply with most criteria for STF (single transparent façade) or DTF (double transparent façade). However, the difference between interior temperature and operative temperature inside the office when DTF is used is almost 3°C. Therefore, we can say that the use of DTF reduces cooling requirements.

There is a significant reduction of air velocity inside the room with the DTF cavity, which behaves as a buffer zone between the interior and exterior climates. In the DTF office, as the exterior temperature rises, the airflow velocity at floor level, close to occupant's ankles, is significantly reduced, whereas just above the seated occupant's head, the velocity increases. In the office with STF, airflow velocity increases at floor level and reaches the limited values listed in *Table 1*.

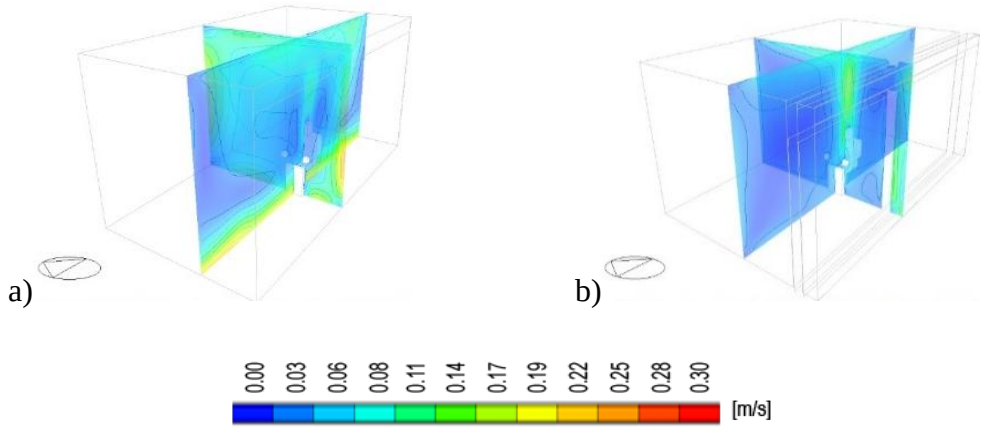


Figure 3 *Airflow velocity curve: a) STF and b) DTF with use of natural ventilation – 8. 8. 2002, 17:00*

Although thermal comfort and subsequently the PMV and PPD models are over recommended limits (mentioned in section Evaluation of thermal comfort). Figure 4 illustrates that the DTF cavity contributes to reducing warm thermal sensation. In the STF case, every occupant is dissatisfied, but in the case of DTF, the PPD index is lover by 14%.

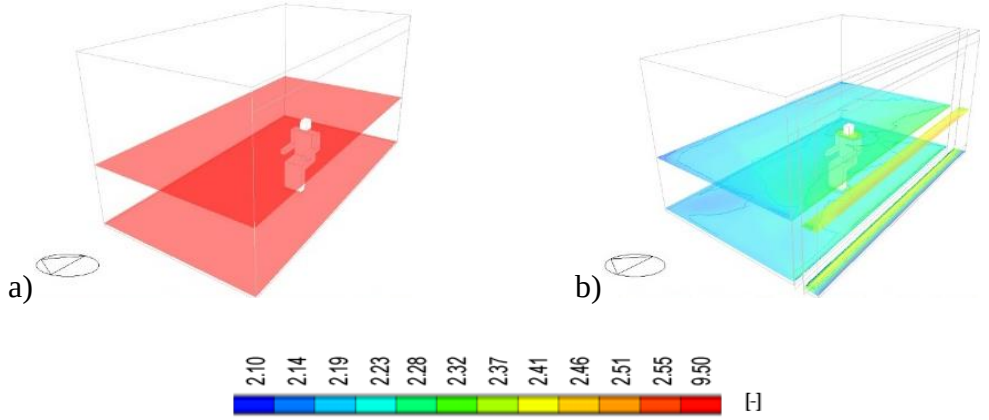


Figure 4 *PMV model: a) STF and b) DTF with use of natural ventilation – 8. 8. 2002, 17:00*

With an outside temperature of 31.77°C, the operative temperature inside the STF office varies from 34.7°C to 35.7°C. In contrast, in the DTF office, the façade cavity reduces the temperature and it varies from 32.0°C to 32.75°C. DTF considerably reduced operating temperatures in the interior offices.

4.3 The lowest outside dry bulb temperature during spring season

The main boundary condition for variation No.2 is an outside dry-bulb temperature of 4.68°C on March 26, 2002. Highlighted variables do not comply with standards for the Czech Republic [6] and North America [7].

Table 6 shows DTF's positive effect on thermal comfort inside the office even if the outside temperature is much lower than the recommended temperature for using natural ventilation. The natural ventilation affects the value of the interior humidity, which depends on the outdoor relative humidity and interior temperature. In most of simulations, the interior relative humidity is lower than acceptable limits (*Table 1 and 2*).

TYPE OF FAÇADE			**STF** (single transparent façade)	**DTF** (double transparent façade)
Interior relative humidity [%]			**4.91**	**5.13**
Boundaries for CFD simulation (based on calculation of Energy Plus)	**V_a [m^3/s]**	office	0.040	0.032
		cavity	-	0.042
	T_a [°C]	office	23.17	23.54
		cavity	-	18.98
	T_o [°C]	office	24.71	23.61
		cavity	-	21.72
Results based on CFD simulation	**v_a [m/s]**	range / limits	0.001 → 0.48	0.001 → 0.26
		--- 1.1 m	0.09	0.07
		--- 0.1 m	**0.35**	0.17
	LMA [s]	range / limits	0.00 → 286.6	0.00 → 657.5
		--- close to occupant	260.58	537.90
	PMV	range / limits	- 2.37 → - 0.39	- 9.50 → 0.09
		--- occupant's ankles (0.1 m)	- 1.47	- 0.92
		--- occupant's head (1.1 m)	- 0.57	- 0.63
	PPD [%]	range / limits	8.23 → 90.24	5.00 → 100
		--- close to occupant	**45.51**	**23.18**

Table 6** Comparing values for VARIATION No.2 (26.3.2002, 12:00) – **4.68°C

Figure 5 shows that use of natural ventilation in the case of an office with single transparent façade is not reasonable. The airflow velocity reaches values around 0.35 m/s, which are unacceptable for thermal comfort in a workplace. In the case of double transparent façade cavity substantially eliminates inhomogeneous flow and acts as a buffer zone. In the office,

the airflow velocity achieves a maximum of 0.17 m/s and thus complies with limits set by the regulations mentioned above.

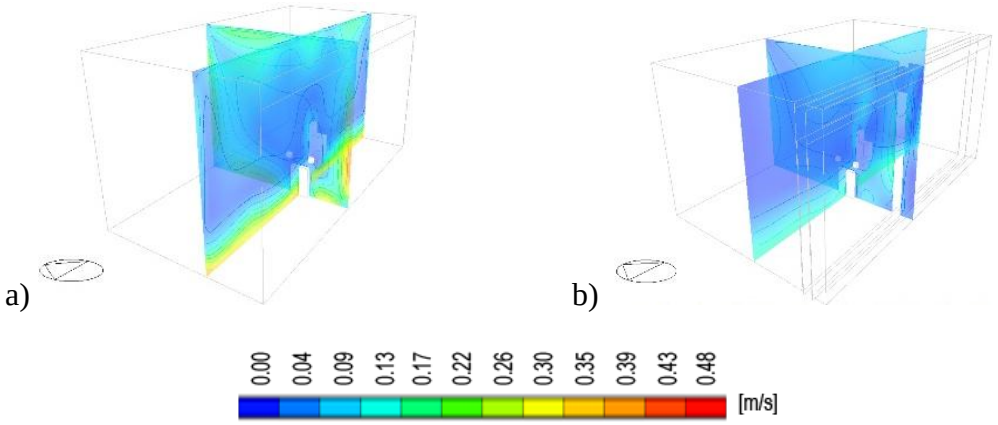


Figure 5 *Airflow velocity curve: a) STF and b) DTF with use of natural ventilation – 26.3. 2002, 12:00*

Figure 6 shows the curve of the predicted mean vote (PMV) model. In the case of an office with STF, the PMV model values are around -2.3 to -0.4, which means a cool or slightly cool thermal sensation for room occupants. At floor level, occupant's ankles, the PMV model value is around -1.5. This value results from value results from high airflow velocity (see *Table 6* and *Figure 6*). The DTF case has a PMV model value of around -0.9 for the office, which is slightly cool, but still a better value than that for the STF case. Also, the PPD modes is much more favourable for DTF. It has an occupant dissatisfaction rate of around 23.2 % rather than 45.5 % in the STF case.

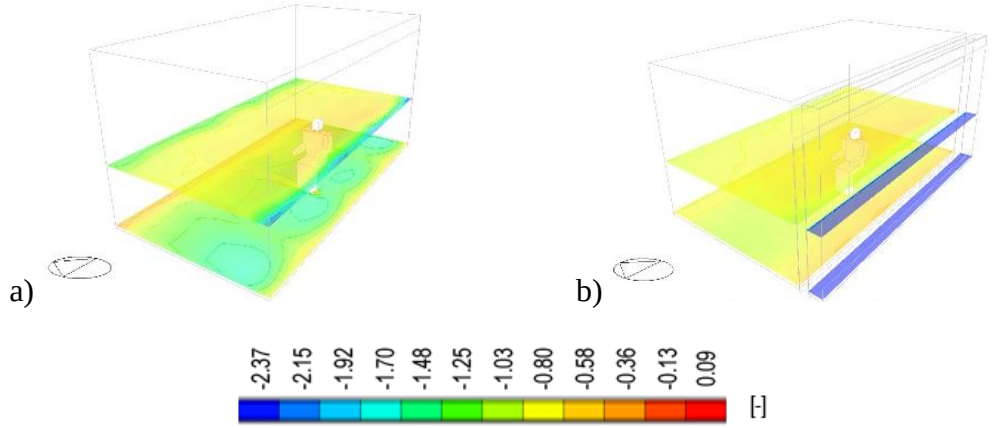


Figure 6 *PMV model: a) STF and b) DTF with use of natural ventilation – 26.3. 2002, 12:00*

In double transparent façade case, the operative temperature curve throughout the room is almost invariant at around 23.5°C, whereas in the façade cavity, a temperature gradient of 10°C can be observed, with temperatures ranging from 14.5°C to 24.5°C. These temperature differences facilitate air movement. In the single transparent façade case, the operative temperature ranges from 21.5°C to 25.3°C, with temperatures difference of up to 4°C in the office room. This difference can cause discomfort for occupants.

4.4 The highest wind speed during summer and spring seasons

In addition to the outside dry-bulb temperature, wind speed is a very important boundary condition for potential use of natural ventilation. As a result, the case with highest wind speed

during the summer and the spring seasons has been defined. Despite this high wind speed, the airflow velocity inside the office room is not higher than in previous variations. The combination of all boundary conditions, especially wind direction and outside dry-bulb temperature, accounts for this.

TYPE OF FAÇADE			**STF** (single transparent façade)	**DTF** (double transparent façade)
Interior relative humidity [%]			**29.15**	32.96
Boundaries for CFD simulation (based on calculation of Energy Plus)	**V_a [m^3/s]**	office	0.073	0.072
		cavity	-	0.203
	T_a [°C]	office	**34.77**	**32.87**
		cavity	**-**	**32.17**
	T_o [°C]	office	**35.17**	**32.51**
		cavity	-	**32.77**
Results based on CFD simulation	**v_a [m/s]**	range / limits	0.001 → 0.30	0.001 → 0.19
		--- 1.1 m	0.08	0.12
		--- 0.1 m	**0.22**	0.04
	LMA [s]	range / limits	0.00 → 716.0	0.00 → 1933
		--- close to occupant	650.93	1405.3
	PMV	range / limits	2.61 → 9.50	2.10 → 2.60
		--- occupant's ankles (0.1 m)	9.50	2.23
		--- occupant's head (1.1 m)	9.50	2.23
	PPD [%]	range / limits	95.5 → 100	80.9 → 95.2
		--- close to occupant	**100**	**86.17**

Table 7 *Comparing values for VARIATION No.3 (18.7.2002, 16:00) –* ***11.45 m/s***

Table 7 shows that the most important values for thermal comfort are in the recommended values. Only airflow velocity in the office room with single transparent façade and interior relative humidity in both cases are beyond the limits (see *Table 1 and 2*).

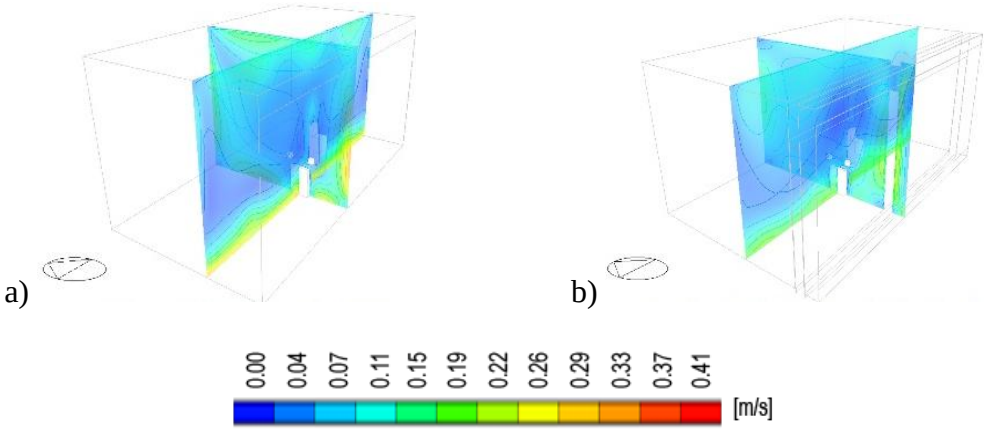


Figure 7 *Airflow velocity curve: a) STF and b) DTF with use of natural ventilation – 18.7. 2002, 16:00*

In the case of STF, the airflow velocity reaches the highest values close to the floor and window, almost 0.3 m/s. This high speed causes discomfort and results in a higher PPD model value. In contrast, the airflow velocity curve in the DTF office is lower than that in the STF office and remains within the limits. The highest speed is about 0.19 m/s, but in the rest of the room, airflow velocity reaches lower values than in the STF office. Lower flow results in a higher age of air (LMA) inside the room. In the DTF case, the age of air is almost twice that of the air in the STF case.

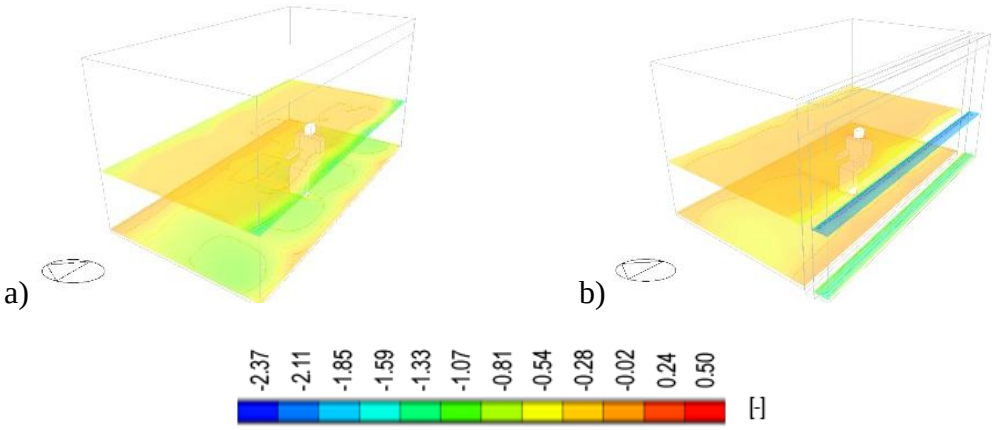


Figure 8 *PMV model: a) STF and b) DTF with use of natural ventilation – 18.7. 2002, 16:00*

Table 7 and *Figure 8* show that with DTF, thermal comfort inside the office is much more favourable than with STF. The difference between thermal sensation at floor level, close to occupant's ankles, and at sitting position is always lower than in the case with STF. Single transparent façade PMV value ranges close the thermal sensation to around -0.8, which provides a slightly cool feeling, but in double transparent façade the thermal sensation is within the recommended values. Higher differences in PMV values are caused by high airflow velocity, in which case the occupant may feel discomfort. That is why the PPD model is always less favourable for the office with STF.

5 CONCLUSION

As seen in the previous comparisons, thermal comfort is better when DTF is used. At present, high-rise buildings most of the time uses air conditioners for ventilation. However, using natural ventilation in a workplace without air conditioners is much more acceptable for occupants; mechanical systems often cause SBS (sick building syndrome).

Here that the improvements results from DTF's lower values of airflow velocity. All these variables depend on boundary conditions that, in turn, depend on geographical location, floor level and opening size. However, natural ventilation cannot be used in every situation involving DTF. During very hot summer days and very cold winter days, mechanical ventilation is necessary. Moreover, a disadvantage of natural ventilation, in most cases, is insufficient interior relative humidity; therefore, it is necessary to ensure that office air is humidified.

One of this study's most important findings is that we cannot set a limit temperature for a specific location when we use natural ventilation without adding heating or cooling. Other important factors must be considered, such as building orientation, wind direction, solar altitude, solar azimuth and wind speed – all of which could affect the occupant's thermal comfort and therefore the possibility of using natural ventilation. The combination of all these variables is important.

Although many combinations of boundary conditions are possible, based on previous simulations, we can conclude that thermal comfort inside an office with DTF compares favourably with that instead of office with STF. However, it is still unclear how DTF or STF may be applied, and the possibility of using natural ventilation is a major issue. Further investigation is needed.

Acknowledgment

This paper was supported by the Grant Agency of the Czech Technical University in Prague, grant No. SGS17/017/T1/11.

Sources

1. OESTERLE, E. et al. 2001. *Double Skin Façades*, Prestel Verlag, Munich
2. GRATIA, E., DE HERDE, A., No. 36, 2004, *Optimal Operation of a South Double-Skin Façade,* pp.. 41-60, Energy and Buildings
3. GRATIA, E., DE HERDE, A., No. 81, 2004, Is Day *Natural Ventilation Still Possible in Office Buildings With a Double-Skin Façade?*, pp. 399-409, Energy and Building
4. GRATIA, E., DE HERDE, A., No. 81, 2007, Guidelines for Improving Natural Daytime Ventilation in an Office Building With a Double-Skin Façade, pp. 435-448, Solar Energy
5. VALOUSKOVA, K., 2014, *Heat Losses and Gains Depending on Size of Double Transparent Façade Cavity*, pp. 639-647, 13th International Conference on Indoor Air Quality and Climate
6. Nařízení vlády č. 93/2012 Sb., kterými se mění Nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění Nařízení vlády č. 68/2012 Sb.
7. ANSI/ASHRAE Standard 55-2013, 2013, Thermal Environmental Conditions for Human Occupancy, ASHRAE
8. ČSN EN ISO 7730, Ergonometrie tepelného prostředí – Analytické stanovení a interpretace tepelného komfortu pomocí výpočtu ukazatelů PMV a PPD a kritéria místního tepelného komfortu, 2006, Český normalizační institute, Praha
9. DesignBuilder version 4.2.0.054
10. EnergyPlus version 8.1.0.009
11. eQUEST-DOE2, Glass Library

Contact
Ing. arch. Kristýna Valoušková
ČVUT v Praze, FSV, Katedra technických zařízení budov
Thákurova 7, 166 29 Praha 6
Email: kristynavalouskova@gmail.com

VLIV STÍNĚNÍ NA TEPELNOU STABILITU EKOLOGICKÝCH DOMŮ

THE EFFECT OF SHIELDING ON THE THERMAL STABILITY OF

Šárka Čálková, Tomáš Váchal, Jakub Diviš

Abstrakt

Článek se zabývá problematikou letní teplotní stability v objektech, které jsou šetrné k životnímu prostředí. Byl navržen, vyprojektován a postaven objekt ekologicky šetrného domu, jehož konstrukce byla tvořena samonosnou slámou, hlínou a dřevem. Na tomto objektu byly změřeny potřebné hodnoty pro porovnání výsledků s výpočty, ze kterých vychází hypotéza celého výzkumu.

Klíčová slova: *teplota, stabilita, sláma, hlína*

Abstract

The article deals with summer temperature stability issues in environmentally friendly buildings. Designed and built an environmentally friendly house, whose construction consisted of self-supporting straw, clay and wood. Necessary values for comparing the results with the calculations, in this object from which the hypothesis of the whole research is based, were measured.

Key words: *temperature, stability, straw, clay*

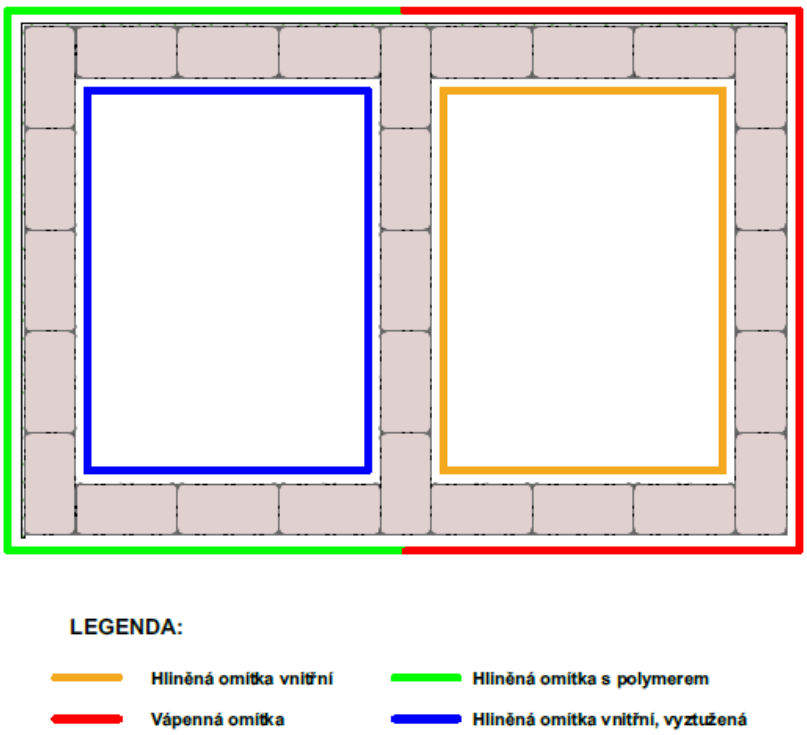
1 ÚVOD

Tento příspěvek řeší problematiku letní tepelné stability v objektech, které jsou šetrné k životnímu prostředí. Letní tepelná stabilita je v posledních letech ve světě velmi důležitým tématem z důvodu kolísání teplot v interiéru během letního období. K velkému kolísání teplot dochází především u budov, které mají velký podíl prosklených ploch ve fasádách, je však nutné zajistit tepelnou stabilitu i u běžných staveb. Výstupy diplomové práce, které budou navazujícími materiály na tento příspěvek, budou nápomocny široké veřejnosti v rozhodování, zda má smysl výstavba ekologických staveb na podobném principu, podobně jako je realizovaný experimentální objekt.

2 EXPERIMENTÁLNÍ OBJEKT

Ze studentské grantové soutěže Českého vysokého učení technického v Praze, grantu č. SGS17/009/OHK/1T/11, byl financován návrh, projekční práce a stavba experimentálního objektu. V rámci usnadnění administrativy bylo rozhodnuto, že realizovaný objekt bude o celkové půdorysné ploše do 25m^2, neboť takový objekt nevyžaduje vyřizování stavebního povolení ani ohlášení stavby. Celý objekt byl již od fáze projektu řešen jako co nejvíce šetrný k životnímu prostředí, ale s ohledy na celkový rozpočet stavby to nebylo úplně jednoduché. Stavba byla založena na devíti betonových patkách o půdorysných rozměrech 500x400mm, na které byl položen dřevěný věnec, který byl tvořen latěmi o průřezu 50x40mm a OSB deskami tloušťky 18mm. Na spodní dřevěný věnec byly ukotveny kastlíky pro dveře, které byly technologicky řešeny úplně stejně jako již zmiňovaný věnec. Po jejich osazení se již mohlo začít se skládáním slaměných balíků do požadované výšky dle projektové dokumentace, samozřejmě s ohledem na osazení kastlíků pro okna. Po dokončení výstavby slaměných stěn byl osazen horní ztužující věnec, jehož řešení bylo úplně stejné, jako řešení

věnce spodního. Po tomto procesu přišla řada na stažení stěn ocelovými páskami, které byly předepnuty dle přesného stanovení zatížení konstrukce. Konečně přišla na řadu pultová střecha. Bohužel na tomto místě bylo použito ne úplně ekologických zdrojů, a to především z důvodu ekonomického. Krytinou se staly asfaltové pasy. Po dokončení kompletní nosné konstrukce slaměného domu o půdorysných rozměrech 6x4 m, mohly začít dokončovací práce. Jednak šlo o osazení výplní otvorů, především se ale jednalo o nanesení omítek. Vnitřní omítky byly v obou místnostech v interiéru hliněné, na straně exteriéru byly zvoleny na polovině hliněné a na druhé polovině vápenné. V obou případech bylo žádoucí nanést stejnou tloušťku omítky. Pro vznik diplomové práce, která bude navazovat na tento článek, bylo důležité, aby oba druhy omítek měly stejnou hodnotu prostupu tepla, což bylo ověřeno v programu URSA OBÁLKA. Obě omítky měly při dané tloušťce 50mm součinitel tepelné vodivosti roven hodnotě 0,8Wm-1K-1. Na základě této hodnoty bylo uvažováno se stejnými podmínkami v obou místnostech experimentálního domu. Přibližně se stejnými podmínkami bylo uvažováno na základě polohy vůči světovým stranám. Okno v každé z místností bylo orientováno na stranu jižní, přičemž dveře byly orientovány na stranu východní a západní. Obě místnosti byly odděleny stěnou, která měla stejnou skladbu, jako stěny obvodové.



Obr. 1: Půdorys experimentálního objektu spolu s materiálovým rozdělením omítek

3 TEPELNÁ STABILITA V LETNÍM OBDOBÍ

Definice stability byla převzata od Kulhánka [1]. Hodnocení tepelné stability místnosti je typickým příkladem neustáleného teplotního stavu, neboť zkoumá chování vnitřního prostoru v případě, že je místnost v letním období osluněna a dochází k nárůstu teploty vnitřního vzduchu. Letní tepelná stabilita místnosti je stále aktuálnějším problémem, neboť především u objektů s vysokým podílem prosklených ploch v obvodovém plášti je nebezpečí přehřívání vnitřního prostoru v letním období vysoce akutní.

3.1 Stanovení teplotní stability v letním období

Pro určení tepelné stability právě v letním období je nejdůležitějším ovlivňujícím faktorem nejvyšší denní vzestup teploty vzduchu v místnosti. Pro určení této veličiny existují tři možné postupy.

Prvním z nich je výpočet. Výpočet této veličiny je podrobně specifikovaný v normě ČSN 73 0540-4, nicméně vychází z Kirscherova vztahu. Pro tento postup je nutné znát maximální tepelný zisk a akumulovanou tepelnou energii v neosluněných konstrukcích tvořících místnost, pro jejíž zjištění je potřebné znát přesné specifikace všech materiálů, které tvoří svislé i vodorovné konstrukce. Tento způsob je nejsložitější.

Druhý způsob je za pomoci softwaru. Ideálním příkladem softwaru je program Stabilita 2011, který je právě k těmto účelům určen. K určení tepelné stability pomocí tohoto programu je nutné zadat materiálové charakteristiky, orientaci ke světovým stranám a velikosti otvorů v dané místnosti. Program pomocí výpočtového algoritmu zpracuje zadaná data a jeho výstupem jsou výsledky, které lze následně použít.

Třetím způsobem je samotné měření teploty po určitou dobu a následně vyhodnocení oscilací teplot ve vnitřních a vnějších prostředí objektu.

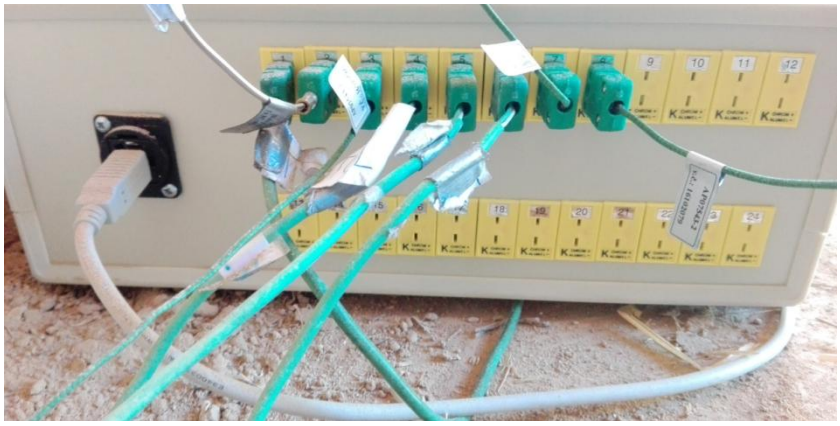
3.2 Měření teplot v experimentálním objektu

Pro určení tepelné stability postaveného experimentálního objektu byla zvolena varianta třetí, tzn. přímé měření teploty. Měření probíhalo po celé tři měsíce po ukončení výstavby a uzavření objektu v obou místnostech stavby. Uvnitř byla nainstalována souprava s čidly a centrální ústřednou pro sběr dat, která byla propojena s notebookem, do kterého byla zaznamenávána data každých pět vteřin. Pro získání dat k vyhodnocení, byla v objektu umístěna čidla: dotyková terčíková čidla na vnější líc skla oken, na vnitřní líc skla oken, prostorová čidla uprostřed místnosti ve výšce 10 cm od podlahy a prostorová čidla uprostřed místnosti 10 cm od hrany podhledu.

3.3 Měření teplot v experimentálním objektu

Měření probíhalo v obou místnostech kontinuálně. Pro měření a vyhodnocení dat byly vytvořeny tři různé scénáře. První byl referenční, kdy měření proběhlo v obou místnostech bez stínících prvků. Následné dva již probíhaly s použitím stínících prvků. V druhém byl přidán vnitřní stínící prvek na okno jedné místnosti – látka na bázi geotextilie, která měla téměř nulovou propustnost světla. Poslední měření probíhalo s vnějším zakrytím pomocí textilní markýzy.

3.4 Měřicí přístroje



Obr. 2:Centrální ústředna pro přenos naměřených dat

Pro správnou kalibraci čidel a odstranění možných odchylek byla použita čidla značky TFA. Oba druhy čidel měřily s přesností na 0,1°C, což bylo pro naše účely dostačující.

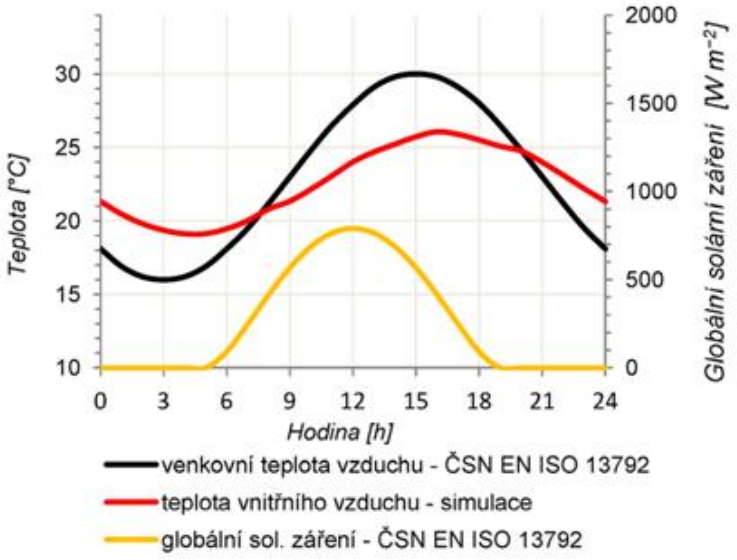


Obr. 3: Čidlo značky TFA určeno pro kalibraci

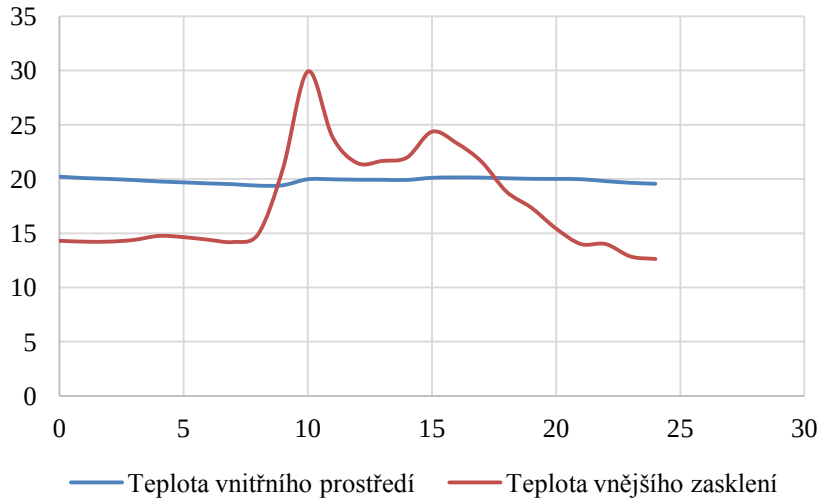
3.5 Hypotéza - předpokládaný závěr měření

Předpokládaný závěr měření je viditelný na grafu viz Obr. 4, který vychází z ČSN ISO 13792. [2] Snahou celého záměru bylo navržení takové konstrukce, která bude z hlediska teplotní stability vyhovovat lépe, než je tomu dle již zmíněné normy.

Na Obr. 5 je viditelný průběh teplot, který byl měřen na experimentálním objektu. Graf je zpracovaný zatím pouze pro jeden den, jedná se o 3. 9. 2017. Vzhledem k množství naměřených dat, bohužel zatím nejsou zpracované kompletní výsledky.



Obr. 4: Graf průběhu teplot dle ČSN ISO 13792



Obr. 5: Graf průběhu teplot experimentálního objektu

4 ZÁVĚR

Pro množství dat, která jsou naměřena, nejsou kompletní výsledky vyhodnoceny. Prozatím se práce nachází ve fázi hypotézy, kdy je předpokládán normový průběh, případně o něco lepší tepelná stabilita v experimentálním objektu.

Použitá literatura

1. KULHÁNEK, František. *Stavební fyzika II: stavební tepelná technika*. Vyd. 3., přeprac. Praha: Česká technika - nakladatelství ČVUT, 2006. ISBN 80-01-03408-9.
2. TZB-info. *Stavba.tzb-info.cz* [online]. 2015 [cit. 2017-11-25]. Dostupné z: http://stavba.tzb-info.cz/pasivni-domy/13198-vnitrni-tepelna-akumulace-pasivnich-domu-a-letni-tepelna-stabilita

Kontaktní údaje
Bc. Šárka Čálková
Fakulta stavební, ČVUT v Praze
Thákurova 2077/7, 160 00 Praha 6
Tel: +420 224 354 559
email: sarka.calkova@fsv.cvut.cz

Ing. Tomáš Váchal, Arquitecto Técnico
Fakulta stavební, ČVUT v Praze
Thákurova 2077/7, 160 00 Praha 6
Tel: +420 224 354 520
email: tomas.vachal@fsv.cvut.cz

Ing. Jakub Diviš
Fakulta stavební, ČVUT v Praze
Thákurova 2077/7, 160 00 Praha 6
Tel: +420 224 357 181
email: jakub.divis@fsv.cvut.cz

TECHNOLOGIE VÝSTAVBY EXPERIMENTÁLNÍ BUDOVY Z NOSNÝCH SLAMĚNÝCH BALÍKŮ

CONSTRUCTION TECHNOLOGY OF EXPERIMENTAL BUILDING BUILT FROM LOAD-BEARING STRAW BALE

Jan Holeček, Michal Procházka, Tomáš Váchal, Hana Najmanová

Abstrakt

Tento článek se zabývá řešením předepnutí experimentální slaměné stavby s nosnými slaměnými balíky postaveného na pozemku Univerzitního centra energeticky efektivních budov ČVUT v Praze (“UCEEB”) nacházející se na adrese Třinecká 1024, Buštěhrad, 273 43. V České republice se nachází okolo 61 slaměných domů. Většina těchto domů využívá slaměné balíky jako výplňovou tepelnou izolaci a nosnou konstrukci tvoří skelet, nejčastěji trámová dřevěná konstrukce. Výsledky měření na experimentální stavbě ukazují průběh sedání samonosné slaměné konstrukce.

Klíčová slova: *sláma, slaměný balík, samonosná slaměná konstrukce*

Abstract

This article deals with the solution of preloading of an experimental load-bearing straw bale construction built on the lands of the Univerzitní centrum energeticky efektivních budov ČVUT v Praze ("UCEEB") located at Třinecká 1024, Buštěhrad, 273 43. In the Czech Republic there are about 61 straw houses. Most of these houses use straw bales as filler thermal insulation and supporting frame structure, most often a beamed timber structure. The results of the measurements on the experimental structure show the course of sedimentation of the structure of a self-supporting straw structure.

Key words: *straw, straw bale, self-supporting straw construction*

1 ÚVOD

Tento příspěvek je věnován problematice sedání slaměných balíků, použitých v nosných stěnách ekologických novostaveb. Rozdílné vlastnosti balíků, v návaznosti na použitý typ balíkovacího stroje, jeho nastavení, délku klasu a řadu dalších faktorů, ovlivňují stavbu nejen při jejím návrhu, ale též během fáze výstavby i jejího užívání. Užití nosné slámy ve stavebnictví je populární především v USA, Velké Británii, Německu a Rakousku, kde také dochází k největšímu výzkumu. Je však nutno podotknout, že v těchto zemích panují nejen rozdílné klimatické, ale též agrokulturní a technologické podmínky. Pro použití v České Republice je tedy třeba provést výzkum v místním prostředí. Výstupy z něj využijí především architekti a projektanti, ale též stavebníci věnující se domům ze slámy.

2 UŽITÍ SLÁMY VE STAVEBNICTVÍ

1.1 Historie slaměných staveb

Sláma v minulosti patřila k využívaným materiálům ve stavebnictví, zejména jako střešní došková krytina, ztužující prvek ve vepřovicích a přísada do hliněných omítek. Zvyšující se požadavky na požární ochranu v první polovině 18. století, zakazující mimo jiné stavění nových dřevených budov, dopomohly k nahrazení těchto materiálů cihlami. Slaměná tradice

byla zapomenuta, ale v dnešní době, kdy se hledí na to, aby byly domy nízkoenergetické a pasivní, je sláma opět vhodným materiálem. [4]
Rozvoj stavitelství využívajícího slaměné balíky začal koncem 19. století. Ve Spojených státech amerických pochází první zmínka o balíkovacím stroji pohaněném koňskou silou z roku 1872. První lisy poháněné parou datujeme k roku 1884. [2,5]
Slaměné domy se začaly poprvé objevovat v Nebrasce. Zde mezi lety 1886 - 1887 vnikla první stavba ze slaměných balíků - školní budova o jedné místnosti poblíž sídla Bayard. V tomto regionu následují v období 1890 až 1930 další stavby. Tyto rané slaměné objekty využívaly slaměné balíky podobně jako cihelné zdivo. Na stěnách pak byla přímo položená konstrukce střechy. Tento styl nosné slámy se později v literatuře označuje jako „technika z Nebrasky". [2,5]
Využití slámy jako izolační výplně pochází z roku 1936. Dvoupodlažní dům s dřevěnou nosnou konstrukcí postavený v Alabamě však shořel již v den nastěhování doktora Williama Henryho Burrita. Dům byl postaven znovu a dřevěnou konstrukci tentokrát nahradila betonová. Sláma, která nebyla příčinou požáru, se využila jako izolace znovu a stavba z roku 1938 funguje stále dodnes. V 50. letech zájem o slaměné stavby upadá kvůli úpravám stavebních předpisů a zákonů. Pokračovaní tradice stavění ze slaměných balíků nastává v sedmdesátých a osmdesátých letech 20. století. V této době vznikají v USA publikace zabývající se nosnou slámou, ale také slámou pro výplň nosných dřevěných konstrukcí. Začátkem devadesátých let se o stavění ze slámy ve Spojených státech amerických výrazně zvýšil zájem. Průkopníky byli především svépomocní stavitelé. První mezinárodní konference na téma stavění domů ze slaměných balíků v roce 1993 vede k založení organizace National Straw Bale Reaserch Advisory Network, která pomohla zefektivnit výzkum v dané oblasti a díky sjednocování legislativy a zkušebních výzkumů dopomohla k dnešnímu rychlému rozvoji slaměného stavitelství v USA. [2,5]
Na evropském kontinentu je nejstarším domem ze slámy Maison Feuillette z roku 1921, nacházející se v Montargis ve Francii. Tento dům je dvoupodlažní. Kombinace příhradové konstrukce a výplně ze slaměných balíků, tvořící zároveň izolaci domu, byl snadný a levný způsob, jak rekonstruovat domy po první světové válce. Další evropský vývoj navazuje až na zvýšení zájmu o slaměné stavitelství v USA. Francois Tanguay vydává na konci 80. let 4 knihy o stavění z balíků ve francouzštině. V devadesátých letech 20. století se konají odborné workshopy v několika evropských zemích. K roku 2001 je v Evropě postaveno přibližně 400 slaměných budov. [2,5]

1.2 Slaměný balík jako stavební dílec

Sláma je vysušená část mezi kořenovým balem a klasem vymláceného obilí. Patří mezi obnovitelné suroviny. Pro stavební balíky je nejvhodnější sláma z pšenice a jejích odrůd. Je složena z celulózy, ligninu a oxidu křemičitého. Její vnější voskovitá vrstva odpuzuje vodu.[5]
Sklizeň obilovin probíhá zejména v letních měsících od června do září podle dozrání klasu. Ke sklizni se v dnešní době užívají sklízecí mlátičky, u nás lidově známé jako kombajn. Obsah vody ve slámě při sklizni by neměl překračovat 17 %. Sláma určená pro lisování má mít obsah vody v rozmezí 12-15 %. V případě vyššího obsahu vody je potřeba slámu sušit. Slámu sušenou v řádcích je vhodné provzdušnit, aby sláma rychleji a rovnoměrněji prosychala. Pro zefektivnění sběru slámy z řádků se využívají rotorové shrnovače, které shrnují více řádku na jeden. [3]
Suchá sláma se plynule sebere z řádků, slisuje se a sváže do stejných balíků, jejichž velikost a slisovatelnost závisí na konkrétním stroji. Nejčastěji bývají balíky rozděleny na malý, střední a velký formát. Malý formát se pohybuje o rozměrech 32 až 35 cm výšky, 50 cm i méně šířky a 50 až 120 cm délky. Lisovací hustota u těchto balíků se pohybuje v rozmezí 80

až 120 kg/m^2. Střední formáty mají rozměry 50 cm výšky, 80 cm šířky a 70 až 240 cm délky a velký formát 70cm výšky, 120 cm šířky a 100 až 300 cm délky, někdy i více. [5]
Malý formát se používá především jako výplňová tepelná izolace do nosných skeletových systémů. Velký a střední formát má lisovací hustotu okolo 180 až 200 kg/m^2 a používají se především pouze jako konstrukční typy nosné slámy. Jejich veliké rozměry vyžadují k manipulaci zdvihací kleště. [5]
Jednou z hlavních výhod slámy je její tepelně izolační vlastnost. Ve směru kolmém k vláknům byla ve výzkumném ústavu pro tepelnou ochranu v Mnichově naměřena podle německé normy DIN 4108-4 hodnota tepelná vodivosti s přirážkou 0,2 (20%) $\lambda_{10,suchý}$ = 0,045 W/mK pro balík o hustotě 90 až 110 kg/m^3. Další německé testy uvádějí hodnotu v rozmezí λ = 0,0369 až 0,0443 W/mK. V USA a Kanadě měření kolmo na stébla slámy uvádějí hodnoty v rozsahu λ = 0,054 do 0,065 W/mK. [2,5]
Při počítaní s hodnotou λ = 0,045 W/mK u stěny z balíku tloušťky 35 cm, oboustranně omítnuté hliněnými omítkami o celkové tloušťce sedm centimetrů vychází součinitel prostupu tepla U = 0,12 W/m^{2}K. U konstrukce s dřevěnými sloupky pak činí hodnota U = 0,15 W/m^{2}K. Tyto hodnoty splňují požadavky normy ČSN 73 0540-2 na pasivní domy, kde je doporučená hodnota u vnější stěny v rozmezí $U_{pas,20}$ = 0,18 až 0,12 W/m^{2}K. [5,7]
Další dobrou předností slámy je její akusticky-izolační vlastnost. Stěny oboustranně omítnuté mají větší vzduchovou neprůzvučnost než stejně těžké konstrukce. Slámě pomáhá k zvukové pohltivosti také její elasticita. Stěny tlusté minimálně 400 mm mají zvukovou neprůzvučnost 50 dB. Měření na balíkové stěně o tloušťce 45 cm hudebního studia v Austrálii ukázalo rozdíl zvukových hladin ve výši 43 až 55 dB. Na území USA jsou v provozu již dvě taková nahrávací studia, slaměné balíky se používají také pro stavbu protihlukových zdí. [2,3]

1.3 Biologie slámy

Pochybnosti o tom, zda je slaměná budova zároveň domovem hlodavců, jsou dnešními zkušenostmi a výzkumy vyvráceny. V USA se zkoumáním nepotvrdilo hnízdění myší ani krys u historických budov. [4]
Na testovacím domu, který byl po čtyřech letech zbořen a každý balík byl prozkoumán, se nenašly žádné důkazy o výskytu škůdců. Celulózu, kterou sláma obsahuje, nejsou hlodavci schopni strávit. Slaměný balík neobsahující nevymlácené zbytky klasu tak není pro hlodavce potravou. Slaměné balíky jsou zároveň silně stlačené s hustotou okolo 90 kg/m^3 i více. Tím je kladen hlodavcům odpor, který jim zabraňuje v hnízdění. K němu tak může docházet jen v místech, kde vznikají mezi balíky neucpané spáry či mezery. Balíky jsou také omítnuty hliněnými nebo vápennými omítkami o tloušťkách pohybujících se okolo tří až šesti centimetrů. U hlodavců nikdy nebylo zaznamenáno, že by takovou vrstvu přemohli. U neomítnutých stěn s fasádou s provětrávanou vzduchovou mezerou je hnízdění myší v této mezeře teoreticky možné, avšak nikdy nebylo potvrzeno, pravděpodobně kvůli nízkým teplotám, které tam v zimě panují. Mezery jsou navíc opatřeny mřížkami proti hmyzu bránícími hnízdění blanokřídlého hmyzu. [4]
Čistá světlá suchá sláma neobsahuje žádné spóry ani plísně. Je důležité proto kontrolovat balíky před kladením, aby nebyly vlhké a špatně vymlácené. Vlhkost balíků nesmí přesahovat 15 %. Plesnivá sláma může vyvolávat zdravotní problémy zejména u astmatiků. Výskyt plísní způsobuje vysoká vlhkost slámy. Vlhkost slámy závisí také na rychlosti vysychání omítek. Pokud se před omítáním původní vrstvy kropí, aby se omezil vznik trhlin, prodlužuje se tím doba schnutí. Nevhodné jsou omítky s vysokým difuzním odporem a v zimních obdobích omítky s vysokým vodním součinitelem. Růst hub je podpořen, jsou-li teploty v rozmezí 20 až 28 °C a relativní vlhkost vzduchu je vyšší než 55 %. Na základě výzkumu badatelů vlhkost vzduchu může být až 80 %, dokonce i 90 %. [2,4,5]

1.4 Varianty konstrukcí slaměných domů

U slaměných budov rozlišujeme dva hlavní konstrukční systémy. První se uvádí jako nosná sláma, nosné balíky nebo nosné stěny z balíku slámy a je označován jako nebraský styl podle původu jeho vzniku. Hlavní prvkem této konstrukce je slaměný balík, který podobně jako nosné zdivo přenáší zatížení ze střešní konstrukce a roznáší jej dál do základů. Balíky jsou kladeny na vazbu a podle potřeby se rozdělují na čtvrtky, poloviny a tříčtvrtky. Ty jsou tvořeny pomocí vázací jehly, kterou je provlečen provázek. Po svázání požadovaného formátu se ustřihnou původní provázky a balík se ručně rozdělí. Pro zvýšení stability konstrukce a urychlení výstavby je vhodné nosné stěny důkladně předepnout. Bodové zatížení je u tohoto stylu nevyhovující kvůli odlišnému stlačení jednotlivých balíků, a proto musí být tato zatížení roznesena. Pro rovnoměrné předepnutí se v konstrukci využívají roznášecí věnce. Horní i dolní věnec tvoří zpravidla OSB desky nebo překližka, která svojí plochou roznáší zatížení, a trámy spojující desky a ztužující celý věnec vůči podélným průhybům. Předpětí se vytvoří pomocí upínacích pásů vedených okolo balíků a věnců, nebo závitových tyčí vedených uvnitř balíků. Závitové tyče jsou připevněny k dolnímu věnci a stahují horní věnec pomocí matic. Balíky se kladou od krajů nebo od dveřních či okenních rámů. Okenní nebo dveřní rámy jsou připevněny k dolnímu nebo hornímu věnci pomocí dřevěných nebo bambusových tyčí. Lze provést i takzvaná plovoucí okna, kde trám není ukotven a volně leží na balících slámy. U oken a dveří se musí počítat se stlačením konstrukce, a proto se při výstavbě nad těmito rámy nechává mezera. Stlačení celé konstrukce musí být takové, aby vlivem zatížení střešních konstrukcí dále nesedala. Je třeba též uvažovat se zatížením sněhem. Výhoda tohoto řešení je v rychlé a nenáročné výstavbě, pro kterou není potřeba školení a mohou jí tak provádět i nezkušení pracovníci. [2,4,5]

Druhým typem jsou skeletové konstrukce, kde slaměné balíky slouží jako výplň skeletových konstrukcí. Skelet je tvořený nejčastěji z dřevených prvků, použít však lze i železobetonové nebo ocelové konstrukce. Balíky u těchto typů konstrukcí nemají žádnou nosnou funkci. Přenáší zatížení vlastní tíhou i hmotnost omítek a mají zde hlavně tepelně izolační funkci. Slaměné balíky musí být spojeny se skeletovou konstrukcí tak, aby byly dostatečně nepoddajné v ploše a odolávaly tak objevujícím se horizontálním zatížením způsobeným převážně větrem. Výhody tohoto konstrukčního systému jsou, že lze lépe přenášet bodová zatížení, postavit střechu před pokládáním balíků a okenní i dveřní otvory jsou pevně umístěny ve skeletu. Nevýhodami jsou velká pracnost a potřeba zkušených tesařů u častých dřevěných skeletů. [2,4]

Kromě dvou hlavních tradičních konstrukčních systémů se dnešním rozvojem slaměného stavitelství objevují i další nové a experimentální konstrukční systémy.

Řadí se mezi ně domy s částečně nosnou konstrukcí. Tato konstrukce se nazývá systém stlačených buněk. Soustava je složená ze svislých prken a vodorovných latí, přičemž slaměné balíky jsou do ní vloženy pod tlakem, který zajišťuje diagonální zavětrování budovy. Ukládaní slaměných balíků a jejich následné laťování je provedeno ve vodorovných řadách. Na balících se poté přestřihnou provázky, čímž se vyrovná tlak v balíku. Ten obepne prkna a není tak nutné provádět pracné vyplňování mezer mezi jednotlivými balíky. Systém stlačených balíků je velice jednoduchý a rychlý a lze jím doplnit nosné skelety jako doplňkovou konstrukci. [6]

Další systém využívající slámu je systém panelový. Sláma je mimo staveniště lisována do předem připravených dřevěných rámů, čímž se vytváří jednotlivé panely. Ty jsou pak dopraveny na stavbu, kde se sestaví. Nevýhodou panelů je jejich vysoká cena.

Experimentální je metoda zateplení suchou slámou. Jedná se o obestavění nosné konstrukce balíky. Nevýhodou tohoto systému je vysoká konvekce vzduchu, která snižuje izolační vlastnosti slámy a zvyšuje riziko požáru. [6]

2 EXPERIMENTÁLNÍ BUDOVA S NOSNOU SLÁMOU

2.1 Balík

Před začátkem projektování slaměného domu bylo nutné najít vhodný slaměný balík pro samonosnou slaměnou konstrukci. Hlavním požadavkem při výběru byla podmínka splnění požadavku na objemovou hmotnost balíku min. 90 kg/m^3. Vybrány byly balíky od Jana Pospíšila. Důležitým faktorem byla pro experiment cena a dostupnost balíků. Cena jednoho balíku byla 35 Kč/ks. Před finálním potvrzením výběru bylo domluveno předání zkušebního vzorku balíku, který vážil 15,43 kg a jeho rozměry byly 54,58 cm šířky, 34,94 cm výšky, 88,43 cm délky. Objemová hmotnost vzorku byla 91,49 kg/m^3, tedy hlavní kritérium pro stavbu ze samonosné slámy zkušební balík splnil. Průměrný rozměr balíků byl panem Pospíšilem potvrzen na rozměry 40 cm šířky, 37,5 cm výšky a 80 cm délky. Tyto rozměry se použily jako základní stavební modul. Pomocí modulu se určily základní rozměry experimentální budovy, oken a dveří.

2.2 Projekt

Budova byla projektována tak, aby splnila podmínky zákona č. 183/2006 Sb. a nevyžadovala stavební povolení ani ohlášení. Půdorysné rozměry budovy vycházející z modulu byly 6 x 4 m. Experimentální objekt byl rozdělen na dvě místnosti příčkou, též ze samonosné slámy. Dveře objektu byly umístěny na východní a západní straně. V příčce byl také vytvořen otvor pro propojení obou místností. V každé místností bylo jedno okno orientované na jižní stranu. Otvory pro okna a dveře byly o šířce jednoho slaměného balíku.

Po ujasnění všech podmínek ostatních účastníků na experimentu se přešlo na projektování základů. Budova se měla realizovat na rovném travnatém terénu. Důležitým prvkem pro základy slaměného objektu je dodržení odstupu balíků před vzlínáním vody a jejich ochrana před odstřikující vodou. Mezera mezi terénem a konstrukcí tak musí být cca 30 cm. Základy byly navrženy jako patky ze dvou řad tvarovek ztraceného bednění. Tvarovky byly umístěny do rohů a do středů stěn. Na delší straně byly osově vzdáleny 2,8 m a na kratší straně 1,8 m. Velikost tvarovek byla projektována jako 400 x 500 mm s výškou 250 mm. Po průzkumu stavební plochy se stavba nakonec realizovala na hotové betonové ploše. To umožnilo regulaci potřebných tvarovek na 1 řadu výšky. Na základy byl navržen spodní věnec.

Horní a spodní roznášecí věnce byly projektovány identicky jako části, které se na stavbě spojí a vytvoří jeden celek. Delší šestimetrové díly v polovině délky a na krajích obsahovaly otvory pro zasunutí kratších, čtyřmetrových dílů. Šířka věnce odpovídala šířce tvarovek, tedy 400 mm. Průřez věnců byl navržen jako složený z dvou OSB desek tl. 18 mm a dvou párů latí 40 x 60 mm. Pro zmenšení průhybů byly latě přikotveny vertikálně k sobě na výšku průřezu a výška celého věnce tak činila 136 mm.

Na dolním věnci bylo navrženo osm řad balíků, na kterých se nacházel horní věnec. Celková výška z návrhu od základů po horní věnec byla 3,54 m. Otvor okna byl navržen ve výšce čtvrté až sedmé řady a nad oknem byla ponechána jedna řada. Výška otvoru okna odpovídala výšce čtyř balíků, tedy 1,5 m. Výška otvoru pro dveře byla 2,25 m, což odpovídalo výšce šesti balíků.

Rámy oken a dveří byly zmenšeny o 50 mm oproti jejich modulovému otvoru z důvodů stlačení balíků. Uznávaná stavitelka slaměných domů Barbara Jones uvádí, že kvalitní balík se může stlačit o 10 mm a méně kvalitní, ale přesto použitelný až o 25 mm. [1]

Tyto výšky odpovídají stavu, kdy se samonosná slaměná konstrukce stlačí při zatížení a stáhnutí celé konstrukce předepnutím. Horní a dolní část rámu okna byla navržena stejně jako věnce. Boky tvořila jedna OSB deska tloušťky 18 mm a latě na okrajích a ve středu, na které se montoval rám plastového okna.

Podlaha se navrhovala zjednodušeně oproti běžným slaměným stavbám, neboť požadavky členů experimentu byly na podlahu minimální. Navržená podlaha se skládala z jedné řady palet o výšce 125 mm. Na nich byla navržena jedna vrstva balíků postavená na výšku 375 mm. Podlahu završoval rošt z latí, na který byla navržena jedna OSB deska tloušťky 18 mm.

2.3 Realizace

Slaměné balíky byly skladovány v obci Poruby, nacházející se v okrese Rychnov nad Kněžnou v Královéhradeckém kraji na paletách pod plachtou. Po odkrytí plachty byly nevyhovující nahnilé balíky vyřazeny, což se týkalo především krajních balíků. Balíky byly 24. 2. 2017 převezeny nákladním vozem a uskladněny v areálu UCEBB také na paletách a přikryty plachtou.



Obr. 1: Uskladnění slaměných balíků v areálu UCEBB

Práce probíhaly především o víkendech. Realizace slaměné konstrukce začala 10. 3. 2017 úpravami OSB desek do požadovaných rozměrů. Další den se vytýčily a postavily základy první pracovní četou o čtyřech lidech. Druhá pracovní skupina začala montovat dílce spodního a horního věnce. Jednotlivé dílce byly posléze vycpány slámou. Po sestavení se dílce dolního věnce přenesly k základům a na tvarovkách byl následně spodní věnec sestaven. V místech středů tvarovek se vyvrtaly ve spodním věnci otvory, do kterých se zasunuly závitové tyče. Toto se provedlo v krátkém časovém úseku, dokud byl beton v tvarovkách ještě čerstvý a nezačala jeho fáze tvrdnutí. Poté se na tyče navlékly kovové kulaté podložky a matice, které se následující den utáhly, aby byl věnec připevněn k tvarovkám. Ve zbytku dne se zhotovily rámy dveří a oken. Práce pokračovaly 24. 3. 2017, kdy se rámy dveří připevnily k dolnímu věnci.



Obr. 2: Připevněné rámy dveří ke spodnímu věnci

Pokládání balíků započalo v brzkých ranních hodinách dne 26. 3. 2017. Do spodního věnce se vyvrtaly díry, do kterých se umístila betonářská výztuž zkrácená na délku jednoho metru. Na tu se napichovala první řada balíků a tím se ztužila první vrstva. Během kladení balíků se přidávala další výztuž ke zlepšení strukturální integrity stavby. Rámy oken se připevnily provizorními latěmi ke spodnímu věnci. Ty se před prvním stlačením konstrukce odstranily. Řada nad rámy oken a dveří se provizorně vypodložila částí balíků. Na tuto řadu byla položena poslední vrstva, na kterou se osadily díly horního věnce, které se smontovaly a vytvořily horní věnec. Poté se odstranilo provizorní vypodložení nad otvory oken a dveří a celá konstrukce poprvé stáhla, nejprve textilními páskami, poté páskami kovovými. Kovové pásky měly lepší a vyšší účinek stlačení.
V pátek 31. 3. 2017 se přidělala řada krokví tvořící střechu a strop. Další den se na trámy zrealizoval záklop stropu z OSB desek. Mezi krokve se poté umístila tepelná izolace. Tentýž den se realizovala také podlaha.
Výstavba pokračovala 18. 4. 2017, kdy se stavba znovu přepáskovala. V tomto týdnu došlo k dokončení střechy a osazení dveří. Následující týden 24. 4. 2017 - 30. 4. 2017 se osadila okna a provedlo se finální stlačení konstrukce kovovými páskami. Cela budova se též na delších stranách doplnila tvarovkami z důvodu vyšších průhybů na spodním věnci.
Dne 29. 4. 2017 proběhl první workshop, na kterém se prováděly vyrovnávací vrstvy hliněné a vápenné omítky. Na dalším workshopu 20. 5. 2017 se prováděla hrubá vrstva omítek. Poslední workshop se konal 3. 6. 2017, zde se provedly finální úpravy omítek.



Obr. 3: Připevněné rámy dveří ke spodnímu věnci

Sedání budovy bylo měřeno pomocí laserového dálkoměru Bosch PLR 50. Měřila se vzdálenost betonové plochy a trámů tvořící strop objektu, ve vzdálenosti 40 cm od vnější hrany základových patek. Také se ověřily rozměry dodaných balíků. Balíky byly položeny do řady o šesti balících a změřily se vzdálenosti prvního a posledního balíku. Průměrné rozměry byly: délka 84,86 cm, šířka 51,17 cm a výška 34,88 cm. Průměrná hmotnost balíku byla 13,45 kg, z toho vypočtená objemová hmotnost pak 88,8 kg/m^3. Balíky použité na stavbu experimentální stavby se řadí k malému formátu. Měřením sedání slaměné konstrukce se došlo k závěru, že budova klesla průměrně o 18,7 cm.

Tab. 5: Celkový pokles slaměné konstrukce

Měření	Výška konstrukce před stlačením [m]	Výška konstrukce před požární zkouškou [m]	Rozdíl [m]
1	3,372	3,195	0,177
2	3,372	3,195	0,177
3	3,339	3,184	0,155
4	3,339	3,168	0,171
5	3,321	3,152	0,169
6	3,321	3,152	0,169
7	3,246	3,102	0,144
8	3,246	3,102	0,144
9	3,271	3,073	0,198
10	3,271	3,066	0,205
11	3,316	3,051	0,265
12	3,316	3,051	0,265
Průměr	3,311	3,124	0,187

3 ZÁVĚR

Experimentální stavba se samonosnou slaměnou konstrukcí byla realizována od 10. 3. 2017 do 3. 6. 2017. Byly použity slaměné balíky malého formátu o průměrných rozměrech: délka 84,86 cm, šířka 51,17 cm a výška 34,88 cm. Objemová hmotnost balíků činila 88,8 kg/ $m^{3.}$
Stěny byly stahovány pomocí kovových pásek pro ověření předpokladu, že jsou na rozdíl od klasicky používaných textilních pásek efektivnější.
Na stavbě bylo provedeno několik experimentů.
Stěna obsahovala 8 řad balíků. Měření sedání stavby ukázalo, že stavba klesla průměrně o 187 mm. Lze říci, že každý balík sesedl o 23,4 mm.
Pro porovnání s tvrzením Barbary Jones, která uvádí, že kvalitní balík slámy se může stlačit o 10 mm a méně kvalitní, ale přesto použitelný až o 25 mm, se námi použité balíky řadí k méně kvalitním a liší se stlačitelností o 1,6 mm. [1]
Hypotéza potvrdila, že se nedá přesně předpokládat, jak se balíky stlačí a jejich poskytovatelé by měli u poptávaných balíků pro samonosný typ konstrukce zatížit a uvádět mimo jiných parametrů také o kolik se při určitém zatížení stlačí. Zkušenosti z experimentální stavby nás upevnily v názoru, že využití malého formátu balíků pro samonosné slaměné stěny je vhodné na stavby do jednoho nadzemního podlaží, a to spíše pro účelové budovy než stavby pro bydlení či rodinnou rekreaci. Pro každou takovou stavbu je vhodné pečlivě stanovit parametry použitých balíků a těm pak přizpůsobit návrh i realizaci objektu.
Celý experiment byl zakončen velkoformátovou požární zkouškou 20. 9. 2017, během níž byl objekt zlikvidován.

4 PODĚKOVANÍ

Tento příspěvek vznikl v rámci grantu SGS17/009/OHK1/1T/11 „Technologické, ekonomické a konstrukční zhodnocení realizace environmentálně šetrného objektu na bázi slámy a experimentální zjišťování jeho požárních charakteristik“. Děkujeme Českému vysokému učení technickému v Praze za udělení grantu k vytvoření experimentální stavby a Univerzitnímu centru energeticky efektivních budov za zapůjčení stavební plochy. Dále děkujeme všem, kteří se na stavbě podíleli vlastní prací, poskytnutím vybavení, materiálu či jiným způsobem.

Použitá literatura

1. JONES, Barbara. *Building with straw bales: a practical manual for self-builders and architects*. Cambridge: Green Books, 2015. ISBN 978-0-85784-228-2.
2. CHYBÍK, Josef. *Přírodní stavební materiály*. Praha: Grada, 2009. Stavitel. ISBN 978-80-247-2532-1.
3. KŘEPELKA, Jiří. *Sláma: sklizeň, zpracování* [online]. [cit. 2017-11-15]. Dostupné z: http://zemedelec.cz/slama-sklizen-zpracovani/
4. MÁRTON, Jan. *Stavby ze slaměných balíků: slaměné izolace v nízkoenergetických a pasivních domech, návrh staveb šetrných k životnímu prostředí, hliněné omítky, ozeleněné střechy*. 2., dopl. a aktualiz. vyd. Liberec: J. Márton, 2014. ISBN 978-80-260-5713-0.
5. MINKE, Gernot a Friedemann MAHLKE. *Stavby ze slámy: jak pořídit z balíků slámy standardní dům*. Ostrava: HEL, 2009. ISBN 978-80-86167-31-2.
6. POSPÍŠIL, Jan. *Festival přírodního stavitelství* [přednáška]. Plzeň: Mezigenerační a dobrovolnické centrum TOTEM, z.s. , Hana Kudová, 11. 2. 2017.
7. *Vnitřní výpočtové teploty dle ČSN EN 12831 a doporučené relativní vlhkosti vzduchu dle ČSN 06 0210* [online]. [cit. 2017-12-01]. Dostupné z: http://vetrani.tzb-info.cz/tabulky-a-vypocty/28-vnitrni-vypoctove-teploty-dle-csn-en-12831-a-doporucene-relativni-vlhkosti-vzduchu-dle-csn-06-0210

Kontaktní údaje
Bc. Jan Holeček
ČVUT v Praze, Fakulta stavební
Thákurova 7, 166 29 Praha 6 - Dejvice
Tel.: (+420) 731 066 593
email: jan.holecek@fsv.cvut.cz

Ing. Michal Procházka, Ph.D.
ČVUT v Praze, Fakulta stavební, Katedra technologie staveb
Thákurova 7, 166 29 Praha 6 - Dejvice
Tel: (+420) 606 218 533
email: prochmi2@fsv.cvut.cz, hrochi@post.cz

Ing. Tomáš Váchal, Arquitecto Técnico
ČVUT v Praze, Fakulta stavební, Katedra technologie staveb
Thákurova 7, 166 29 Praha 6 - Dejvice
Tel: (+420) 224 354 520
email: tomas.vachal@fsv.cvut.cz

Ing. Hana Najmanová
ČVUT v Praze, Fakulta stavební, Katedra konstrukcí pozemních staveb
Thákurova 7, 166 29 Praha 6 - Dejvice
Tel: (+420) 724 045 462
email: hana.najmanova@fsv.cvut.cz

OPTIMIZATION OF PARTS FOR LARGE LOADS IN SOLIDWORKS

Stanislav Prýl, Jaroslav Fábera

Abstract

This paper deals with the design of a rotating station for large and heavy products. This was a combination of requirements from practice, design and technical demands. A verification of technical requirements was accomplished using the Solidworks simulation program, which carried out a strength calculation. By checking the design using the finite element method, it was found that we needed to optimize the base support plate stiffeners. By optimizing, the weight reduction of the station and the stiffness increase have been achieved in the critical points of the design.

Keywords: *optimization, FEM, simulation, calculation*

1. INTRODUCTION

The subject of the study was to create a design, a construction and a subsequent manufacture of the station for rotating heavy parts. Design check should be part of the development of any more complex product. By checking, we can ensure its reliability and security. In mass production, also material optimization and saving are considered.

Checking was done using the Finite Element Method (FEM). This method verified stress strength values and displacement of components.

Solidworks simulation allows us to load the model with linear statics, in which we can load the model with forces, torques (moments), deformations and temperature field. In linear statics, material behavior is linear and described by Hook's law.

1.1 FEM principle

The principle of the finite element method consists in dividing a component into small parts – elements. These elements must be small enough to best describe the given component. The smaller and regular elements will be, the more accurate the calculation. At the corners of these elements, there arise nodes that determine the shape and position of the element. Partial solutions on these elements are combined into one unit after the calculation. For bulk elements, these elements have the shape of a block or a quadrangle. The recommended element size setting for bulk bodies is at least two elements per element thickness.

1.2 Setting

Safety factor: It is used for a simple expression of design reliability. The safety factor is chosen according to the used material and the field of application of the product. For a normal construction of standard steel machines, the safety factor k = 1.5 – 2 is chosen.

Material for the manufacture of the station was chosen from commonly available materials for thick rolled sheets – S355J2.

Přehled vlastností oceli S355J2								1.0577
Druh oceli	Nelegovaná jakostní konstrukční ocel							
TDP	CSN EN 10025-2: 2005							
Dřívější označení	S355J2G4 podle EN 10025: 1990 +A1: 1993; St 52-3 N podle DIN 17100; 11 503 podle ČSN							
Chemické složení v % hmot. (rozbor tavby)	C max. pro tloušťku v mm			Mn	Si	P	S	N
	≤ 16	>16≤40	>40 [1]	max.	max.	max.	max.	max.
	0,20 [5]	0,20 [4]	0,22	1,60	0,55	0,025	0,025	-
Složení hotového výrobku	0,23 [5]	0,23 [4]	0,24	1,70	0,60	0,035	0,035	-
Mechanické vlastnosti pro zkoušky v podélném směru	Minimální mez kluzu R_{eH} MPa pro výrobky jmenovité tloušťky v mm :							
	≤16	>16≤40	>40≤63	>63≤80	>80≤100	>100≤150	>150≤200	>200≤250
	355	345	335	325	315	295	285	275
	Pevnost v tahu R_m MPa pro výrobky jmenovité tloušťky v mm :							
	≥3 ≤ 100			> 100 ≤ 150		> 150 ≤ 250		
	470-630			450-600		450-600		
	Minimální tažnost v % ($L_0 = 5.65\sqrt{S_0}$) pro výrobky jmenovité tloušťky v mm v [3] :							
	≥ 3 ≤ 40		> 40 ≤ 63		> 63 ≤ 100	> 100 ≤ 150		> 150 ≤ 250
	22		21		20	18		17
	Minimální nárazová práce KV (J) při - 20° C pro výrobky jmenovité tloušťky v mm [2, 3]:							
	≤ 150				>150 ≤ 250			
	27 [6]				27 [6]			

Fig. 1: Properties of the chosen material

1.3 Description of the solved problem

The technical solution was based on the requirements for the rotating station. The basic limitations included the built-up height of the station, which should not exceed 300 mm. Weight and load distribution in the horizontal plane. The load of the station up to a workpiece weight of 15,000 kg. The rotation of the station work plate must be performed by manual drive. The adjusting feet at the corners of the station.

The construction design of the rotating station was investigated as a low plate table with a work plate rotatably mounted on a large-diameter turn element „bearing“ with external teeth. Due to a high weight of the parts being handled (high passive resistances and high dynamic torque needed to rotate large masses), the work plate of the station was rotated by a gear mechanism (a circular turn element with external teeth – pinion – worm gear – crank for manual rotation of the station).

The station is equipped with a wooden grate to prevent product damage and to increase frictional resistances between the product and the loading surface when rotating.

The products can be laid on the station with a straight surface (plate) or on the auxiliary conical struts with a diameter of the feet 200 mm.

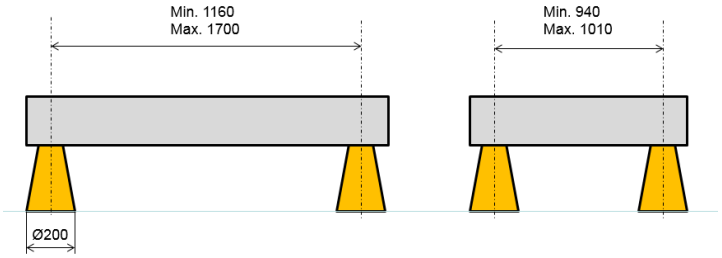


Fig. 2: Load distribution on the rotating station

2. DRAFT CONCEPTS OF THE STATION

The original construction design was based on the initial rough requirements, where after the first idea, a study of a rotating table consisting of two plates was created. A large-diameter bearing was inserted between the plates. The feet of the station were made of solid flat bars where it was assumed to be used on a planar base.

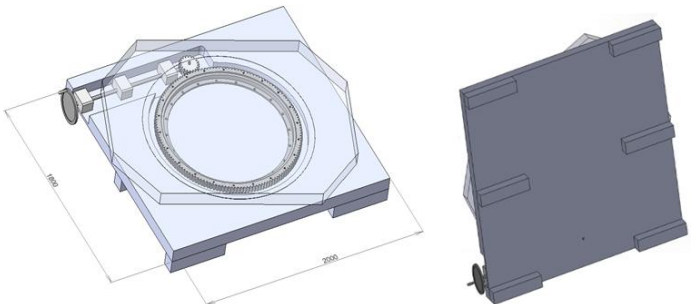


Fig. 3: Basic design of the station

In the next stage of the development, observations were implemented and the design development was being completed. First, it was necessary to design and select a central bearing with sufficient load capacity. For bearing design, we need to know the basic static load that will be stressing the bearing. This load will reflect the weight of the parts being handled and the weight of the upper loading plate with the accessories. Determination of equivalent static axial load and equivalent static torque.

$$F_{0q} \widehat{=} F_{0a} * f_A * f_S$$
$$M_{0q} \widehat{=} M_{0k} * f_A * f_S$$

Application factor f_A ($f_A = 1.5$) and Additional safety factor f_S ($f_S = 1$) according to the manufacturer of the bearing.

$$F_{0a} = \left(m_{dílu} + m_{desky}\right) * g = (15 + 3) * 9{,}81 = 176{,}6\ KN$$
$$F_{0q} = 176{,}6.1{,}5.1 \cong 265\ KN$$

The calculation of the tilting torque is based on the load from the parts being handled and their maximum possible offset when laying on the loading surface (upper plate). It follows from the calculation that a higher tilting torque occurs when the whole part being handled is eccentrically laid rather than in a non-symmetrical suspension of the part and laying the part over the edge of the upper plate. Center of gravity offset l = 0.45 m.

$$M_{0q} = (m_{dílu} * g * l) * f_A * f_S = (15 * 9{,}81 * 0{,}45) * 1{,}5 * 1 \cong 99{,}5\ KNm$$

Eccentric load parameter ε = 1.

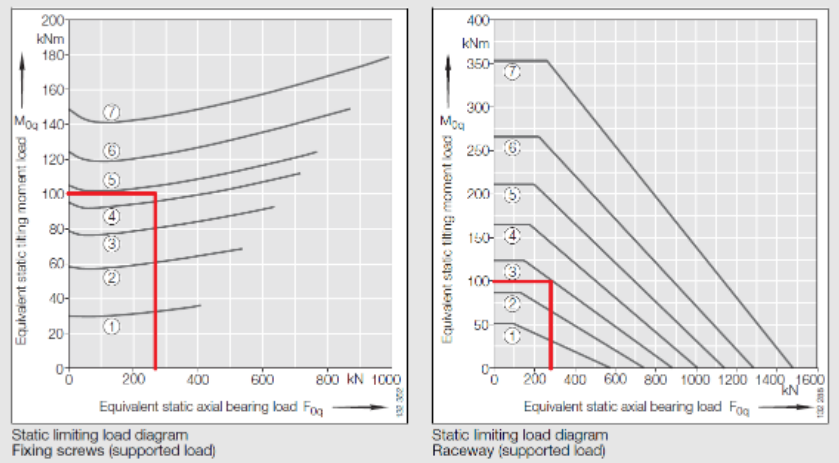


Fig. 4: Load diagram of the fastening bolts.

From F_{0q} and M_{0q} values, the load point and the static load capacity check of the fastening bolts were determined. Due to a possible overloading of the bearing owing to poor handling and an offset of the product being laid, I chose an INA VSA200944N four point contact ball bearing, which is shown in the Graph under the number of 6.

In the next step, it was necessary to provide a manual drive design of the station, which was designed as follows: circular turn element with external teeth – pinion – warm gearbox – crank for manual rotation of the station. It was necessary to ensure a reasonable ratio of speed by the hand crank and the deduced force required to operate the station.

Determining the forces needed to overcome the passive resistances and acceleration:
The moment of inertia of the offset part being handled (Iz = 9322 kg.m^2) to the axis of the rotating station was obtained from a 3D model. The rolling resistance coefficient of the bearing is μ = 0.01.
Friction force *Ft*

$$F_t = \left(m_{dílu} + m_{desky}\right) * g * \mu = (15000 + 3000) * 9{,}81 * 0{,}01 = 1766\ N$$

The speed of rotation of the station is required for 2 rpm, resulting in φ = 4π [rad].
The angular velocity of the rotating station: gear ratio for pinion i_1 = 5.86 and gearbox i_2 = 40.

$$a_\omega = \frac{\varphi}{i_1 * i_2} = \frac{4\pi}{5{,}86 * 40}$$

Acceleration resistance of rotational masses

$$M_s = I_Z * a_\omega \cong 536\ Nm$$

The bearing rotation diameter is di = 945.5 mm
The torque of resistance we have to overcome on the pitch circle of the bearing external teeth is:

$$M_o = M_T + M_s = F_t * \frac{di}{2} + M_s \cong 1358 Nm$$

From the calculated values of the resistances we have to overcome when rotating the station and from the required values of the forces needed for the manual drive of the station, other necessary components, such as pinion gearing and worm gear dimensioning, were designed. The calculation showed the need to use a higher gear series – other built-up dimensions than those in the original design. The number of teeth of the pinion was set at z = 20, worm gear of a CMIS075 series with a gear ratio of i_2 = 40, an output nominal torque 25 Nm and an efficiency of 44%.
From these values, the theoretical force needed to manually rotate the station resulted in 63N.

3. OPTIMIZATION OF THE STATION

An analysis using simulation begins with geometry represented by a model. This geometry must be converted to a set of appropriate large elements. This networking (crosslinking) requirement is important for the analysis results. We simplify the model with the sole goal of supporting the system and shortening the calculation time. Simplification must not be too aggressive to distort the simulation results.

The simplification of our model was accomplished by removing cosmetic threads, bolt (screw) holes, cosmetic chamfers and radii.

After adjusting the geometry, it is necessary to define the boundary conditions – material values, catches, load of a part, type of analysis. A parabolic tetrahedral was used to define the basic element. For our task, the value of Jacobi's method 4 was chosen.

3.1 Optimization of the station loading plate

The design of the loading plate was made of a thick-walled sheet metal in a thickness of 100mm. The optimization of the plate consisted in adjusting its thickness and recessing the seating surface of the bearing. To simplify networking (crosslinking), we removed the cosmetic threads on the upper surface serving to hold (catch) the wooden grate and the bolt holes for attachment to the bearing that were replaced by the corresponding partition curve of the seating surface. The load of the plate was used to asymmetrically lay the load onto four conical struts (webs).

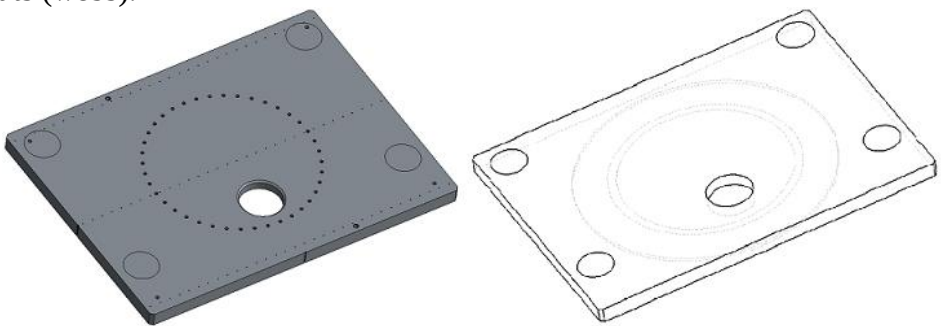


Fig. 5: Displaying the loading plate before and after simplification

Boundary conditions and calculation

An attachment (catch) as a fixed geometry was used for the partition curve (spline) of the seating surface of the bearing. A load of 150,000N was applied to the cylindrical seating surfaces.

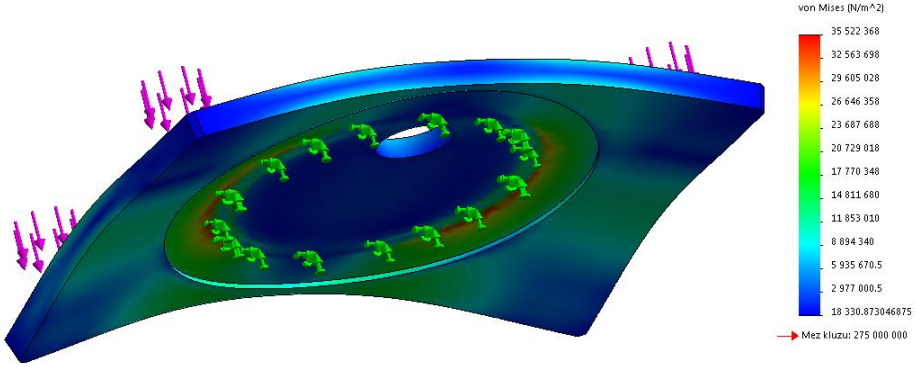


Fig. 6: Stress course in the loading plate - von Mises

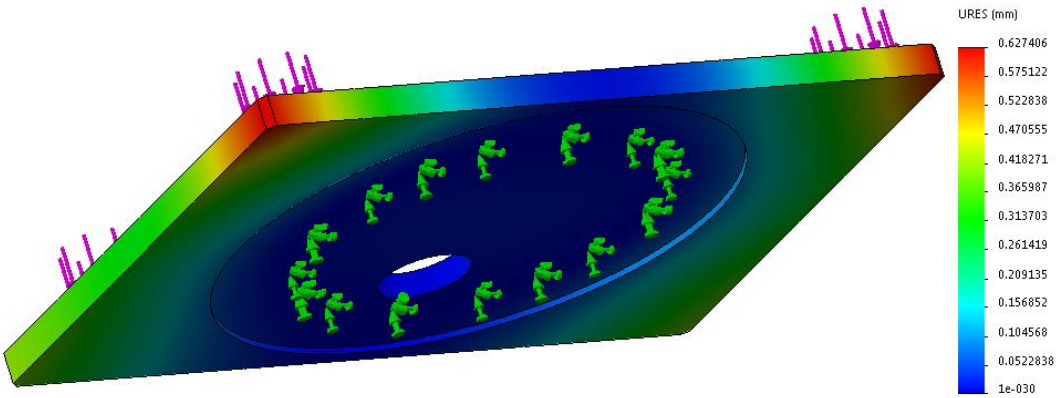


Fig. 7: Displaying the deformation by displacement in the loading plate

From the results of numerical simulations, the thickness reduction of the loading plate by 16 mm and weight reduction by 370 kg were carried out.

3.2 Optimization of the base frame of the station

Modifying the original design:

Fixed feet were replaced for adjustable feet used only at the corners of the station. The position of the worm gearbox was adjusted due to the larger built-up dimensions and the associated connecting parts (bearing houses and drive shaft) that had to be recessed under the base plate. A hole was created through the plate for an easy removal or replacement of the pinion on the worm gearbox.

Simplification of our model was accomplished by removing cosmetic threads, bolt (screw) holes, cosmetic chamfers (chunks) and fillets (rounding). There were also suppressed recesses for stops and seating surfaces which are at the edges of the frame and do not affect its strength.

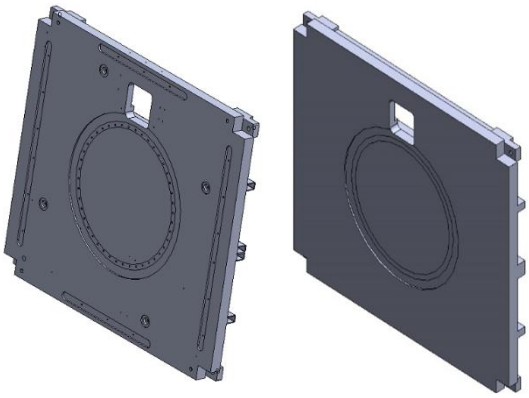


Fig. 8: Displaying the base frame before and after simplification

Boundary conditions and calculation:

The seating surface of the bearing was loaded with a force of 180,000 N. The base frame was attached (caught) by a roller/slider fixture (restraint) that was applied to the surfaces at the adjusting feet. One threaded foot hole was set as fixed to catch the reaction forces.

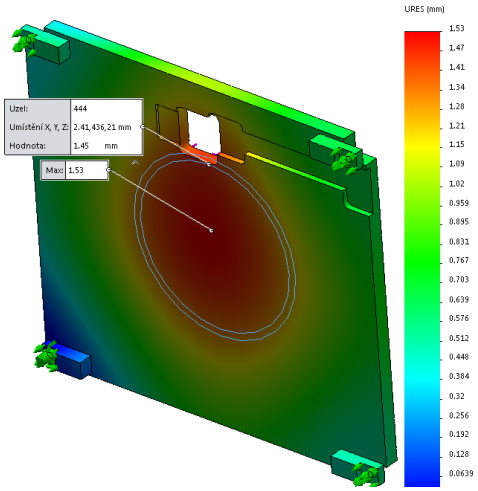


Fig. 9: Initial checking calculation

After a checking calculation, an undue deformation under the bearing was found. The resulting displacement value was 1.45 mm.

The measured stress values exceed the material yield strength. Those peak values occur at sharp edges. In practice, such sharp edges would not occur or would be replaced by a weld in the given point.

The permitted deformation under the bearing according to the manufacturer is 0.145 mm.

Therefore, the longitudinal stiffeners under the base plate were used. For a faster calculation (element networking), a full (solid) profile of (the bars) the stiffeners was chosen.

Modifying the base frame: adding longitudinal stiffeners. The boundary conditions remained the same.

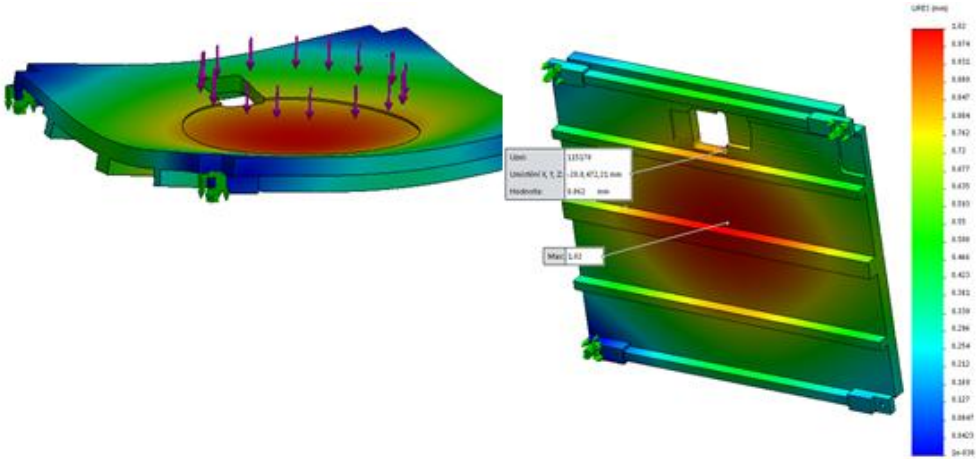


Fig. 10: An example of deformation of the part under load

When using longitudinal stiffeners, the resulting displacement values dropped to a displacement value of about 1mm. From the example of the deformed part, there is evident a collapse of the stiffeners in the transverse direction in the area of the opening for placing the gearbox.

Another approach was to add transverse stiffeners to prevent deformation in the area of the opening.

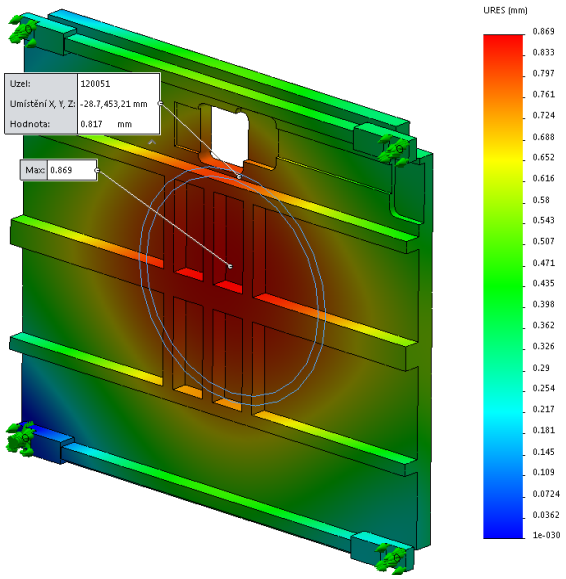


Fig. 11: Deformed frame with transverse stiffeners

After this adjustment, the values of deformation – displacement improved, but the values are still above the serviceability limit set by the manufacturer of the bearing.

Further reinforcing using stiffeners would not make any sense in terms of both increasing the stiffness and the economic point of view where another adding of stiffeners did not bring the desired effect.

Therefore, another approach was a modifying of the basic structure of the station with a design of a central fixed support and the principle of the so-called balance table. This support would significantly increase the stiffness of the table in the critically stressed area. Another advantage of this solution is the distribution of the total weight of the station to a higher number of contact points.

3.3 Verifying the design of a new structure

Verifying the new structure design was done by a classic calculation in Solidworks Simulaton. The center support was mounted using the constraint of a „roller/slider“ type where the Z - axis displacement is prevented for the given surface.

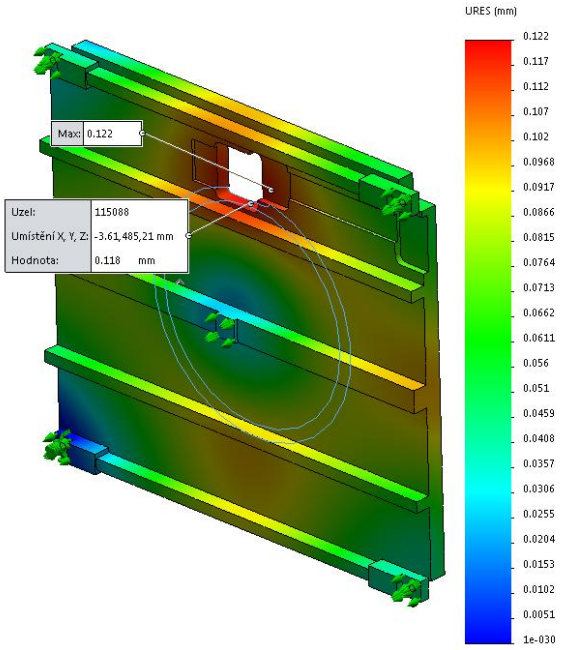


Fig. 12: The displacement course in the modified frame structure

From the results it is concluded a rapid improvement in the resulting displacement when we reduced the deformation of the base frame by one order to a value of 0.12 mm.

The final optimization of the model took place in reducing the weight of the stiffeners when the rod profiles were replaced by a conventional tubular rectangular profile with a wall thickness of 5 mm.

Example of the final reinforcement of the base frame (plate) using stiffeners from tubular profiles.

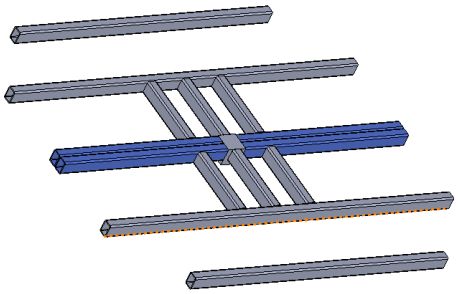


Fig. 13: Example of the base frame stiffeners

In the final calculation, those values were set: The network type was retained from the previous analyses – volume network, the Jacobi method at value 4. The model attachment: the seating surface and the surfaces at the adjusting feet were set as roller/slider, avoiding Z-axis deformation. One threaded feet hole was set as fixed. The load was induced by a force of 180,000N perpendicular to the distribution curve representing the bearing seating surface.

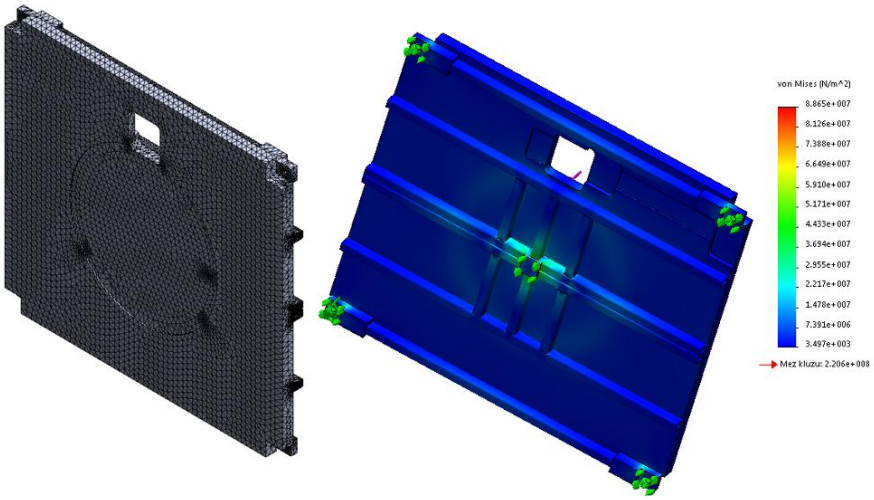


Fig. 14: An example of network - elements creating on the left and stress course on the right

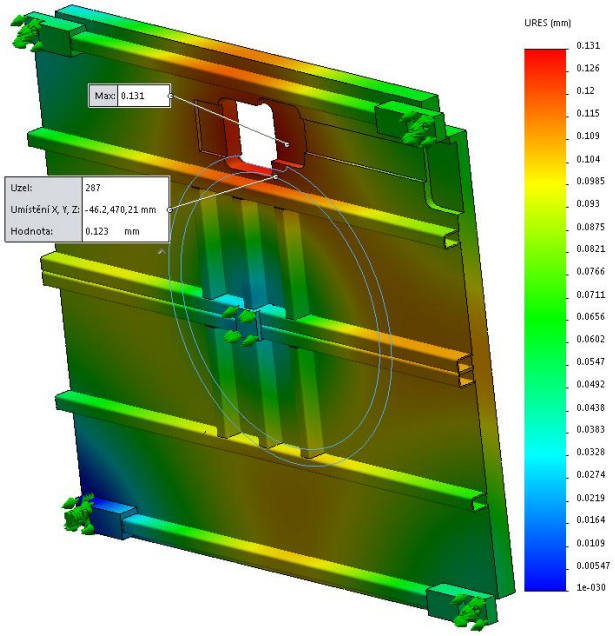


Fig. 15: Displacement course in the optimized structure

Results

From the resulted values it is concluded that we have achieved an acceptable deformation under the bearing using a new design concept and an optimization of the stiffeners. The resulting displacement value is about 0.132 mm under the bearing and the maximum value is 0.131 mm. By replacing the solid stiffeners for the tubular profile, it occurred a decrease of the weight of the base frame by approx. 255 kg.

4. CONCLUSION

This example of work in the Solidworks simulation environment shows a simple design of a component and its immediate check using the finite element method. It is a simplified static analysis that provides quick and accurate results. Using this software, the designer can analyze the static structural behavior of the engineered parts and quickly respond and modify the parts. If parts are stressed with a simple load only, there are avoided negotiations with specialized computing departments with explanations, documentations and above all the loss of time specified for a given project. In its result, the carried out simulation solved by the designer himself or herself examines the basic optimization both in terms of weight of the used material and it mainly leads the designer to more suitable modifications. Design modifications are in the designer's hands, are verified with mathematical simulation and retroactively create a guideline for investigating other similar assignments. The use of simulation calculations in the design process of a structural solution directly by the designer has also an educational value in addition to the design checking function.

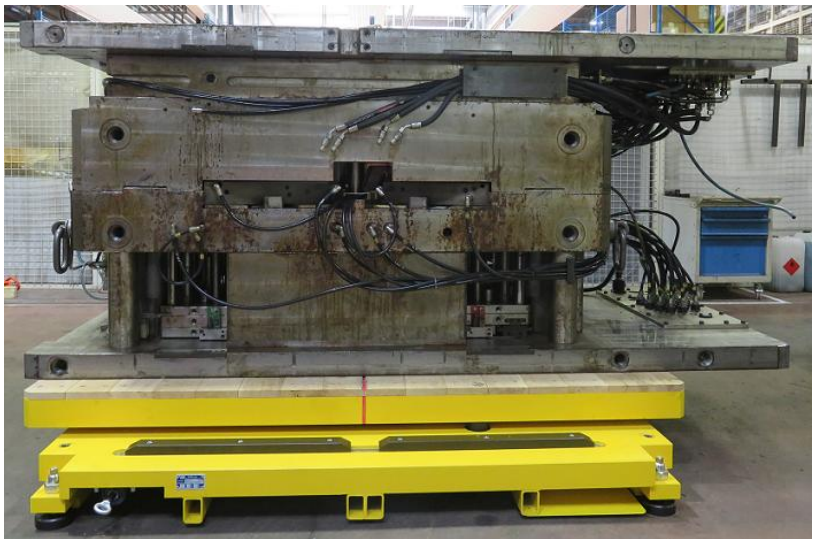


Fig. 16: A real image of the rotating station

References

1. Učebnice SOLIDWORKS. Nová Média, s, 2017. ISBN 978-80-270-0918-3.
2. PANCOAST, David. *Solidworks simulation: solidworks 2009 - training*. 300 Baker Avenue, Concord, Massachusetts, USA: Dassault Systemes, 2009. ISBN 015600014531. ISSN PMT0940-ENG.
3. *Jak na metodu konečných prvků (FEM-method)* [online]. Opava: Ing. Karel Procházka [cit. 2017-11-20]. Available from: www.sspu- opava.cz/~prochazka/ruzne/MKP.doc

Contact data
Ing. Stanislav Prýl
VÚTS, a.s.
Svárovská 619, 460 01 Liberec
Tel: 485 302 656
email: stanislav.pryl@vuts.cz

NON–LINEAR ANALYSIS OF SLENDER MASONRY BEAM

Marek Vokál, Michal Drahorád

Abstract

This paper deals with numerical analysis and design of slander prismatic masonry beams loaded predominantly by axial force and bending moment in plane of the principal moment of inertia. Because of the material non-linearity, classical mathematical theory of slender columns cannot be applied for masonry elements, therefore the proposed method uses iterative non–linear calculation considering both material and geometrical non–linearity.

Keywords: *Masonry, material non–linearity, geometric non–linearity, second order analysis.*

1 INTRODUCTION

Stability analysis is one of the most studied problems in the field of civil engineering. One reason is that the analysis is quite complex due to the many phenomena that need to be included. Recently proposed masonry structures are, considering their arrangement and resistance, usually designed as wall, which strongly emphasize the actual standards (especially 2). If, however, the slender masonry element is to be designed, the method specified in 2 fails and leads to an underestimation of the impact of the stability problem.

The goal of the current research is an analysis of the real behaviour of slender masonry columns under compression and development of simplified methods for their design and verification in combination with the applicable technical regulations.

Accurate methods of modelling have to take into account nonlinear stress-strain diagram of masonry, changes in cross-section characteristics due to development of cracks and the geometric nonlinearity of the problem. At the early age only one non-linearity was consider in analysis, e.g. linear stress-strain diagram in compression with zero tensile strength. Nowadays the most common option is modelling using finite element method. Also the method of numerical integration - Runge-Kutta method - was used.

The object of this article is to develop an MATLAB® algorithm that takes into account the above-mentioned phenomena, i.e. the material and geometric nonlinearity, including changing the center of gravity position due to the cracks development. The prismatic rod loaded in the plane of the main inertia is considered in the analysis.

2 METHODS OF MODELLING

2.1 Stability analysis of theoretically straight column with linear behaviour

Euler's critical load for theoretically straight column:

$$F_{cr} = \frac{\pi^2 EI}{L_{cr}^2} \tag{1}$$

where:

F_{cr} – is critical load, for which the column buckles [kN],

EI – is bending stiffness [kN.m^2] and

L_{cr} – is critical length [m].

Critical length depends on boundary conditions - see Fig. 1. For masonry column only full restraint or free end are applicable.

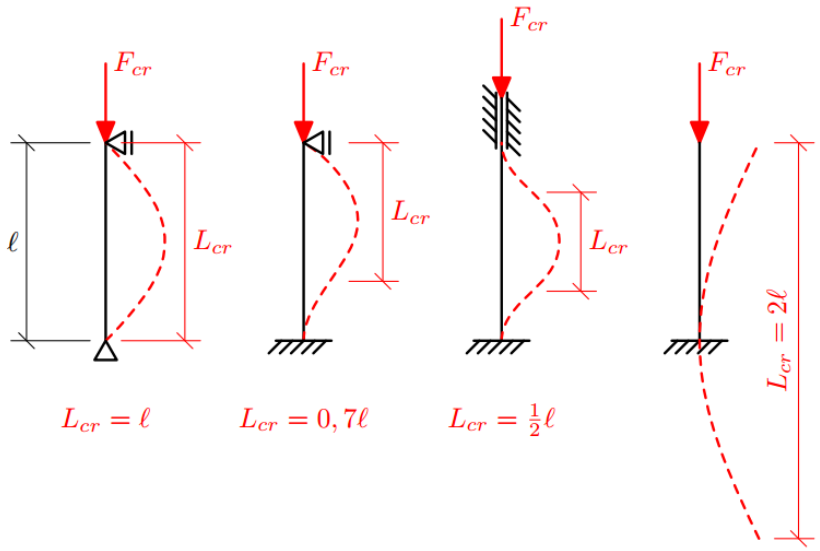


Fig. 1: Buckling shapes and critical lengths for various boundary conditions

In anlgorithm the buckling shapes according to Fig. 1 are used in a form of prescribed initial shape of column (called initial imperfection), see below.

2.2 Stability analysis of a beam with initial imperfections with linear behaviour

Model geometry is based on the real layout and dimensions of the analyzed structure. A crucial input data is the maximum estimated value of the initial imperfection of the structure, which is defined by the principles set out in 2 by:

$$e_0 = max(\frac{L}{450}; \frac{b}{30}; 20\ mm) \tag{2}$$

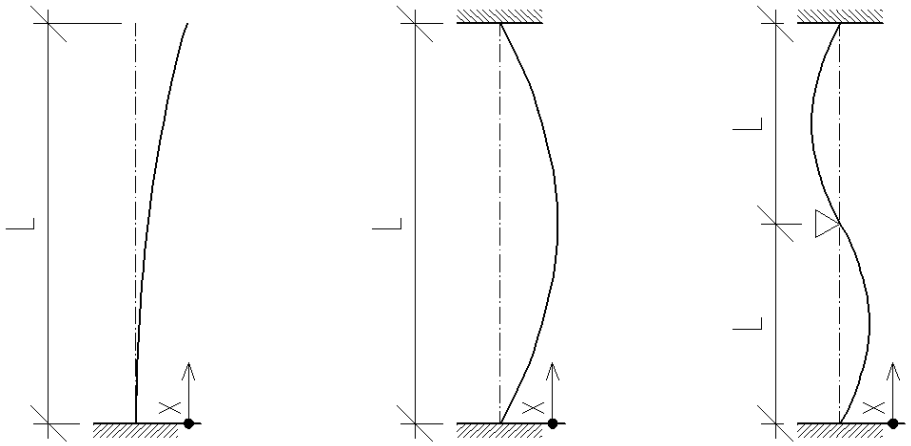
where:

e_0 – maximal initial displacement [mm],

b – is width of cross-section in the direction of buckling [mm] and

L – is effective length, for beam column it is distance of supports in analyzed direction [m].

The initial shape of the structure (imperfection) is determined depending on the expected buckling shape of the structure. Given the nature of masonry as a material with relatively small strength the buckling shape is considered to be sinusoidal, or part of sine function in any "span" of column, i.e. between the supports. The functions used for the approximation of the initial shape of the structure are shown on Fig. 2. In the case of unequal length of "fields" approximation functions have to be selected individually for each field.



$$e(x) = e_0 \cdot \left[\cos\left(\frac{\pi x}{2L}\right) - 1\right] \qquad e(x) = e_0 \cdot \sin\left(\frac{\pi x}{L}\right) \qquad e(x) = e_0 \cdot \sin\left(\frac{\pi x}{L}\right)$$

Fig. 2: Left: cantilever beam, middle: simply supported beam, right: the beam, which is supported on both sides by hinges and has a hinge support in the middle of height

In future, the number of initial imperfection shapes will be expanded so as to cover all the possibilities of structure geometry and design tolerances for the execution of building works according to the relevant technical regulations and standards.

Way of solving the problem:

Given the nature of the problem (above mentioned) solving is performed by method of inverse iterations. Solvee the system of equations of the form:

$$(K - KG).r = 0 \tag{3}$$

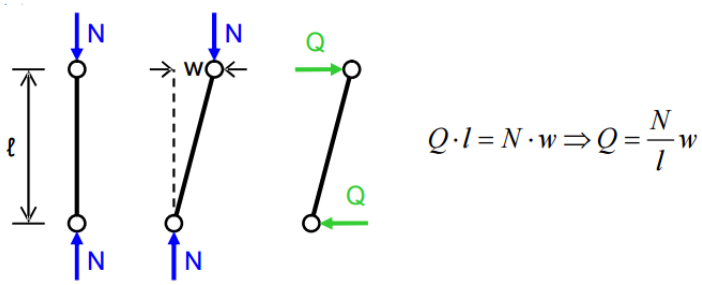
where:

K – is global stiffness matrix considering the boundary conditions (regular matrix) [kN/m],

KG – is a geometric stiffness matrix and

r – is a vector of displacement.

Geometric stiffness matrix for a beam hinged on both sides is derived from a simple equilibrium conditions:



$$Q \cdot l = N \cdot w \Rightarrow Q = \frac{N}{l} w$$

Fig. 3: Derivation of geometric stiffness matrix for a beam hinged on both sides

$$KG = \frac{N}{l}\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} \tag{4}$$

where:

N – is normal force in the beam [kN] and

l – is a beam length.

Geometric stiffness matrix for a beam fixed on both sides:

$$KG = \frac{N}{30l}\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 36 & 3l & 0 & -36 & 3l \\ 0 & 3l & 4l\text{^}2 & 0 & -3l & -l\text{^}2 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -36 & -3l & 0 & 36 & -3l \\ 0 & 3l & -l\text{^}2 & 0 & -3l & 4l\text{^}2 \end{bmatrix} \tag{5}$$

Equation (3) can be modified for the purpose of calculation to:

$$Kr = f + f_{ekv} \tag{6}$$

where:

f – is a load vector, and

f_{ekv} – is vector of equivalent load calculated as follows:

$$f_{ekv} = K_G r \tag{7}$$

In the (i+1)–th step of iteration we can calculate:

$$Kr^{i+1} = f + K_G^i r^i \tag{8}$$

Where:

i – is number of step. It is used in upper indices.

Analysis uses following algorithm:

$$Kr^0 = f \tag{9}$$

$$Kr^{i+1} = f + K_G^i r^i \tag{10}$$

$$abs(r^{i+1} - r^i) < \varepsilon \tag{11}$$

Equation (9) is solved first to obtain r^0, from which N^0, K_G^0 are calculatet. Then, from equation (10) we obtain r^{i+1} – vector of displacement of next step. This step is repeated until

the criterion of equation (11) is fullfilled. In Matlab algorithm, error is chosen to be smaller than $\varepsilon = 10^{-8}m$.

3 MATERIAL PROPERTIES

3.1 In general

Masonry as a construction material is highly heterogeneous, consisting of separate masonry elements (bricks, blocks, etc.) and of joints filled with binder (mortar) usually of significantly lower strength and stiffness. Lower strength and stiffness of the mortar ensures uniform transfer of load between the masonry units, and even in places of local stress concentrations (i.e. where the asperity of the masonry elements occurs). High mortar strength and stiffness increase the strength of the entire composite material, but in areas of local asperities undesired crushing of masonry elements would occur, with consequent risk of failures.

3.2 Masonry material model

In practical terms, a discrete model of the structure, which takes into account the individual elements and their behaviour is unusable, particularly with regard to complicated determination of the input data, its own calculation and evaluation of the result. For the purpose of analysis and the structural design, the material is usually homogenized in an appropriate manner to preserve its properties in relation to the real behaviour of the structure modelled.

Consistent approach is chosen in this study. Masonry is considered as a homogeneous or homogenized material. It is assumed that the dimensions of masonry elements and the joints between them do not significantly affect the distribution of stress in a masonry member. Evaluation of the structure is then carried out only in the weakest cross-section, i.e. in the joints of brickwork. It is assumed that if the structure fulfils verification in the joints, it fulfils verification in all other cross-sections.

The real stress-strain diagram of masonry shows a non-linear behaviour:

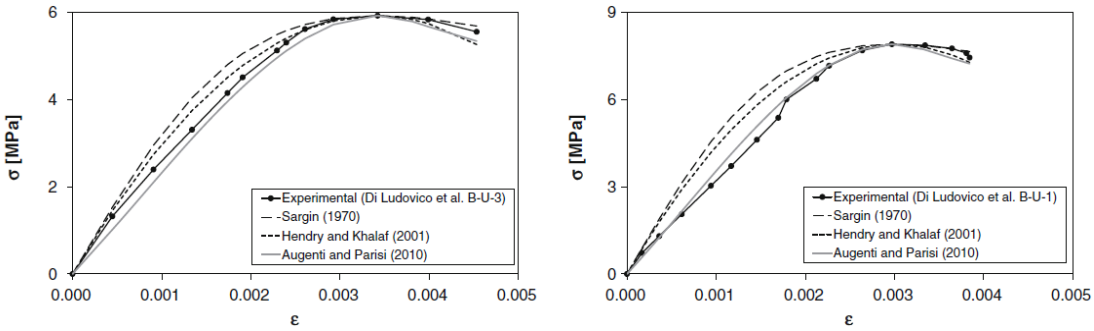


Fig. 4: Stress-strain diagram of masonry – experiments and curves, which try to fit it

The stress-strain diagrams were described for example Hendry and Khalaf 5, Augenti and Parisi 4 or Sargın 6.

In this work it is assumed that the material reacts only on the pressure and the occurrence of tensile stress leads to cracking and its opening. If subsequently (eg. in another load combination) tensile stress in cross-section vanishes, the cracks will close and cross-section acts as full again. Idealized stress-strain diagrams of such behaviour of the material for the individual limit states in accordance with 2 are shown on Fig. 5. Stress-strain diagrams are considered linear (SLS), or linearly-plastic (ULS).

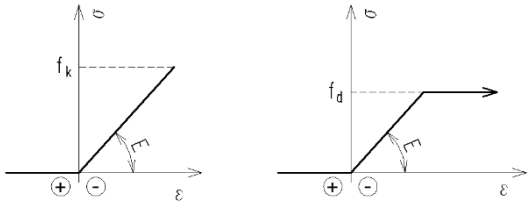


Fig. 5: Stress-strain diagrams of masonry used for analysis of structure. Left: Serviceability limit state, right: Ultimate limit state

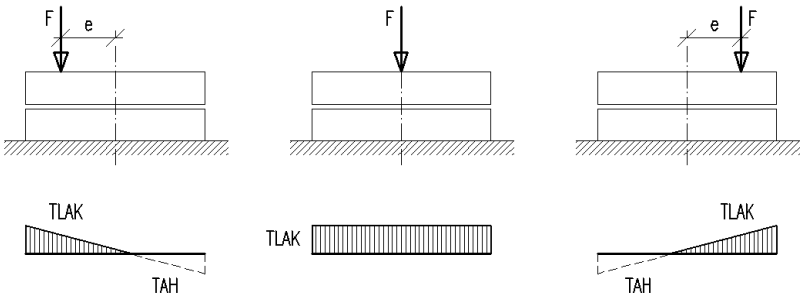


Fig. 6: Changes of cross-section properties in dependence of load. Upper: Load position, lower: Corresponding stress distribution

4 MECHANICAL MODELLING OF MASONRY COLUMNS

The introduction of the above-described material model causes significant changes in geometry and stiffness of the structure being modelled in dependence on the applied load. The widening of the cracks in the masonry together with the geometrical non-linearities leads to non-linear solution of the whole problem.

Principle of modelling of cross-sections and individual elements, changes in the stiffness and the geometry of the structure caused by the applied load are shown on Fig. 9. On the left picture may be seen, that tension in the part of cross-section makes this part excluded. The cross-section gets smaller and center of gravity moves - Δ. The move of centroid has a positive effect on the stresses (the bending moment gets smaller) but cross-section getting smaller has negative effect on stresses, which increase.

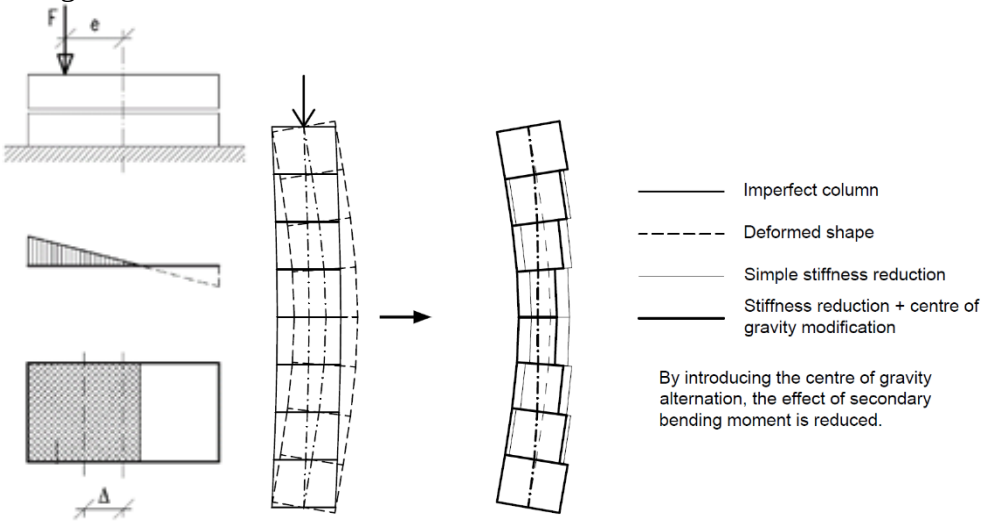


Fig. 7: Changes of cross-section and geometry of structure due to excluding the tensioned parts

The method of calculation (see also 2.2):

1) First step
    a. Dividing of the column to partial beam elements,
    b. Elastic analysis of vector r^0 with full cross-section – see equation (9),
    c. Calculation of stresses in the cross-section of each element and determining, whether the excluding of the tensioned part of cross-section executes, or the cross-section remains full,
    d. Filling of the matrix „prop“ – matrix of height, area and moment of inertia of cross-section in each step of calculation.
2) Second and every other step
    a. Calculation of Δ - move of cross-section of each element (from matrix „prop“ from last step),
    b. Calculation of matrix *K* with the new cross-section properties and changed geometry,
    c. Calculation of matrix *KG* – see chapter 2.2,
    d. Calculation of vector r with changed geometry and new matrix *K*,
    e. Calculation of stresses in the new cross-section and determining, whether the new cross-section gets even smaller or it grows bigger again,
    f. Filling of the matrix „prop“,
    g. Checking the condition of convergence – see equation (11).

5 EXAMPLE 1

Column hinged on both sides with square cross-section BxH=0.4x0.4 m with height 4.2 m was chosen. Its initial imperfect shape was chosen according to (2), initially inclined right. Axial load on the column was 770 kN and bending moments at both ends 39 kNm. These moments were chosen so, that it enlarge moment from imperfection. The final deflection and int. forces can be seen on Fig. 10.

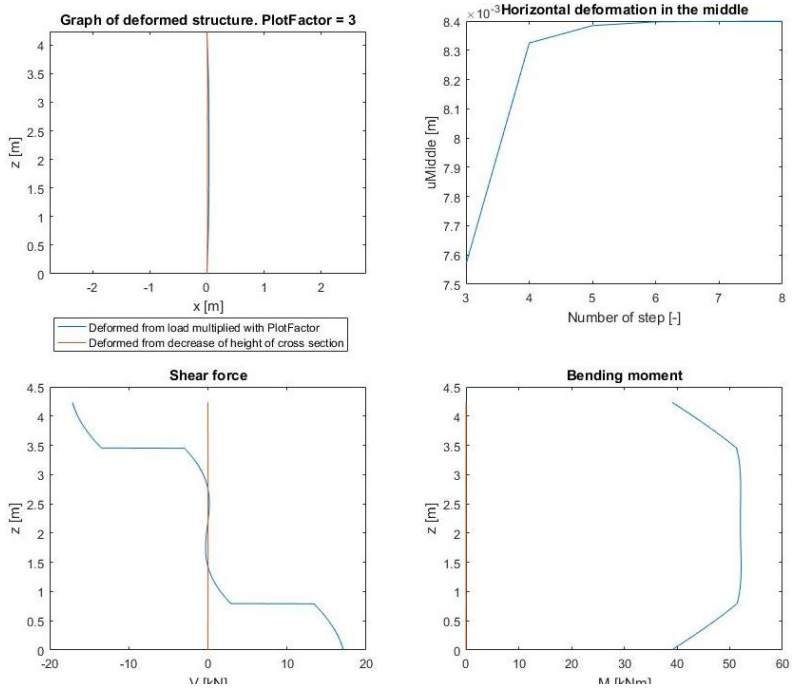


Fig. 8: Left top - final shape and lateral deflection (see also Fig. 11), right top – lateral deflection of the middle of the column in each step of calculation, left bottom – shear force

in the final step, right bottom – bending moment in the final step. All this is for the case, that cross-section reduces and the calculation converge to equilibrium

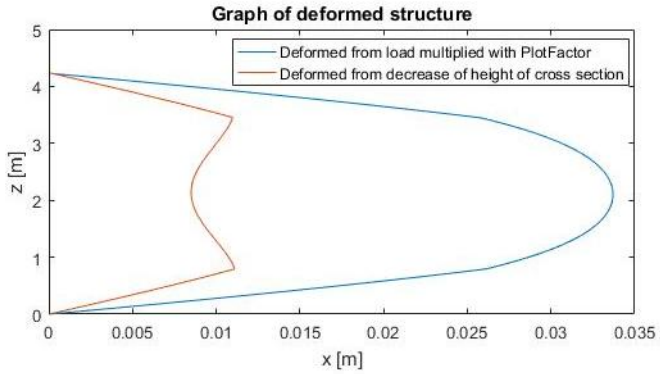


Fig. 9: Final shape of center of gravity and lateral deflection of this structure, non-proportional plot. It is for the case, that cross-section reduces and the calculation converge to equilibrium

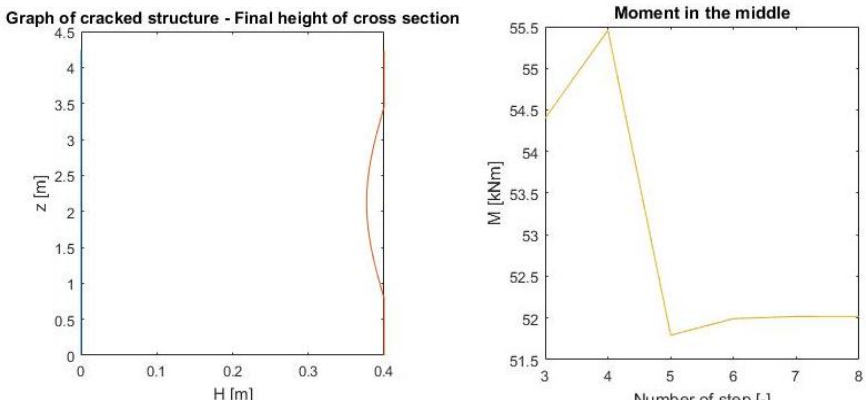


Fig. 10: Left – final height of cross-section at the final step, right – bending moment in the middle of height of the column in each step of calculation. It is for the case, that cross-section reduces and the calculation converge to equilibrium

The load in above example was chosen so that the material non-linearity will show up. If the load is higher than critical, the lateral deflection grows excessively large. In such a case, the calculation stops after few steps:

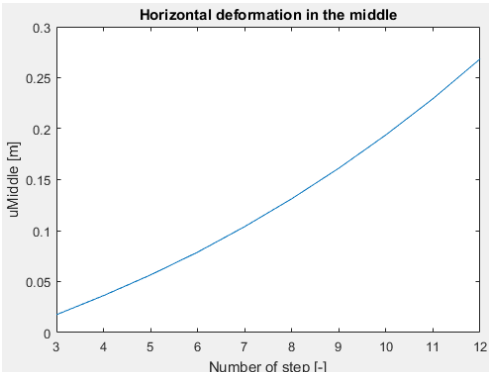


Fig. 11: Lateral deflection of the middle of the column in each step of calculation. It is for the case, that the cross-section reduces and the calculation didn't converge

The last possibility is, that the column cross-section doesn't reduce, because no tension occurred. So the calculation is carried out only with the assumption of linear behavior of material.

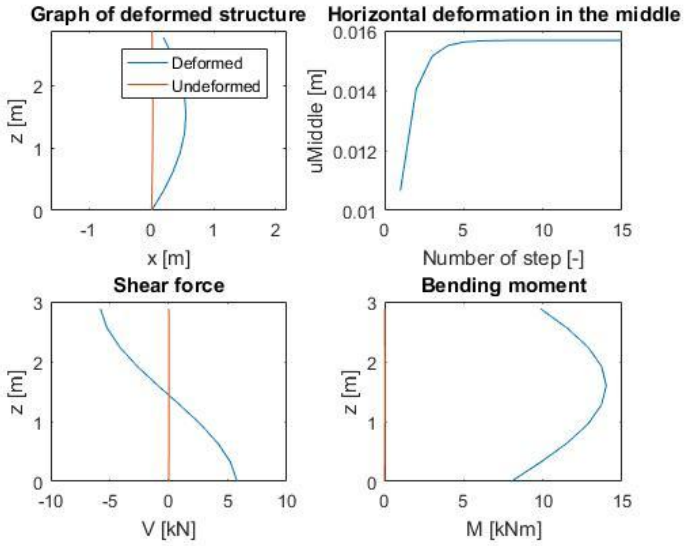


Fig. 12: Left top - final shape and lateral deflection, right top – lateral deflection of the middle of the column in each step of calculation, left bottom – shear force in the final step, right bottom – bending moment in the final step. All this is for the case, that cross-section doesn't reduce and the calculation converge to equilibrium

6 EXAMPLE 2

As an example, column, which rotations are fixed at both sides with square cross-section BxH=0.4x0.4 m with height 8.2 m was chosen. Its initial imperfect shape was chosen 0.18 m, initially inclined right. Axial load on the column was 770 kN. The final deformation and internal forces can be seen on Fig. 10.

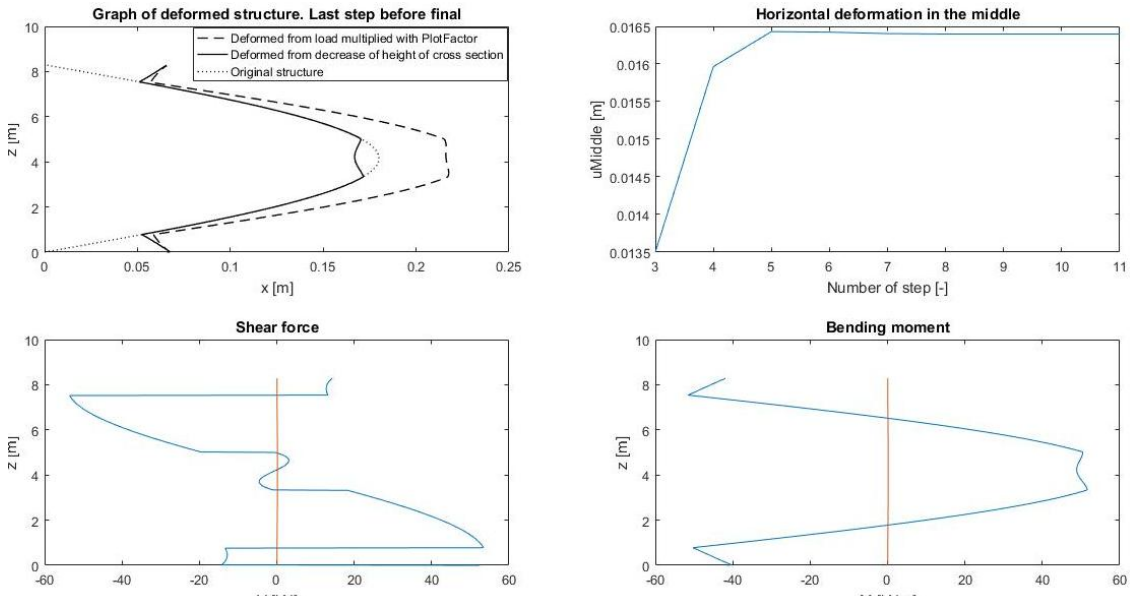


Fig. 15: Left top - final shape and lateral deflection, non-proportional plot, right top – lateral deflection of the middle of the column in each step of calculation, left bottom – shear force in the final step, right bottom – bending moment in the final step. All this is for the case, that cross-section reduces and the calculation converge to equilibrium

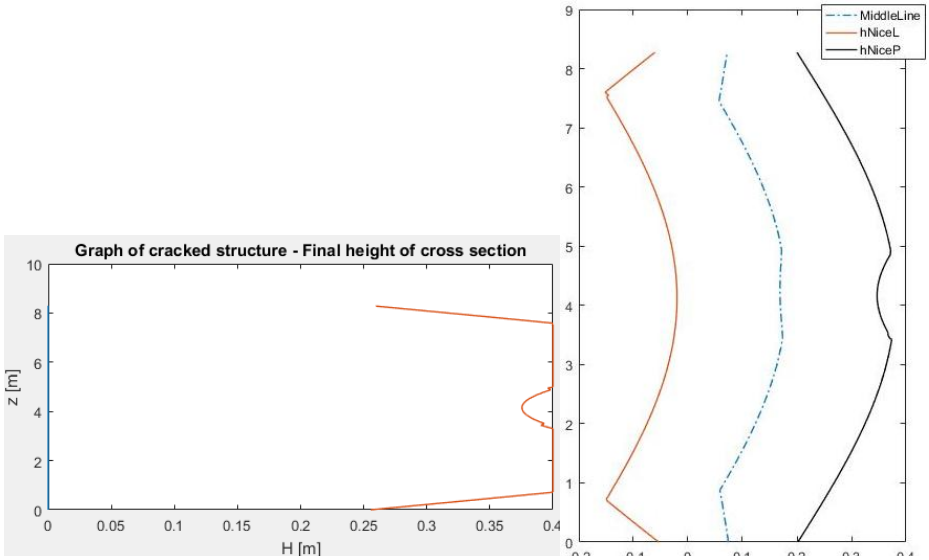


Fig. 16: Left - final height of cross-section at the final step, right - final shape of the column

7 CONCLUSIONS

An algorithm which can solve non-linear stability analysis of slender columns loaded in the plane of the main moment of inertia was implemented in the program MATLAB®. The program allows to analyze these structures till its failure. In the future extension of algorithm to columns loaded in general plane is assumed to be made. The authors also plan to extend the algorithm to general structures, not only columns under compression.

Sources

1. DRAHORÁD, M. Load–Bearing Capacity of Masonry Arch bridges, *Proceeding of conference* International Conference Engineering Mechanics 2013, pp 33–34.
2. EN 1996–1–1 (2005) – Design of masonry structures
3. MINAFO, G., C. GIACCHINO and M. FOSSETTI, M. Stability analysis of clay brick masonry columns: numerical aspects and modelling strategies. *Materials and structures*. London: E. & F.N. Spon, 2014, no. 28, ISSN 1359–5997
4. AUGENTI, N. and F. PARISI. (2010) Constitutive models for tuff masonry under uniaxial compression. *Journal of Materials in Civil Engineering*, Vol. 22, Issue 11 (November 2010) J Mater ASCE 22:1102–1111
5. HENDRY, A. W., KHALAF, Masonry wall construction, Spon press, USA and Canada, 2001, ISBN 0–203–46772–8
6. SARGIN, M., *Stress–strain relationships for concrete and the analysis of structural concrete sections*, Release 4, University of Waterloo Solid Mechanics Division. ISBN: 9780994152008, 167 s.
7. Linear stability and theory of II. Order – Mech.fsv.cvut.cz [online]. [cit. 2017–01–09]. Available from: http://mech.fsv.cvut.cz/~leps/teaching/ankc/cviceni_08.pdf

Contact

Ing. Marek Vokál
CTU in Prague
Thákurova 7, 166 29 Praha 6
Czech Republic
Tel: +721 404 528
email: marek.vokal@fsv.cvut.cz

ENERGY EFFICIENT HEATING AND DOMESTIC HOT WATER SYSTEMS IN THE MULTI-DWELLING HOUSE – CASE STUDY

Martin Kovac, Katarina Kovacova

Abstract

This paper presents the results of energy and financial evaluation of heating and domestic hot water system in the multi-dwelling house. The object of this evaluation is energy performance of central and decentralised heating and domestic hot water systems. The central system represents heat production in the central boiler room for all flats and its transport to points of supply. Within the frame of a decentralised system there are proposed and analysed residential thermal stations (RTS) and individual local heat sources for heating and domestic hot water system in every flat. The energy balance is elaborated by current valid European standards and regulations for EPBD. The financial balance is focused on investments differences for all evaluated systems and on operation costs calculated on the base of energy balance.

Key words: *energy, heating system, DHW system, residential thermal station, gas boiler*

1 INTRODUCTION

The data about the final energy consumption from EUROSTAT show the significant share of buildings on the final energy consumption over the last 20 years in all states of EU. The right design of heating and domestic hot water system in term of heat sources, distribution network and system regulation significantly influence the energy consumption in buildings. Therefore the decentralised systems of heat supply are preferred nowadays that reduce thermal losses from distribution pipes. One such solution is the heating and domestic hot water system (DHW) with using of residential thermal stations (RTS) that are located directly in the flats and supply the space heating and hot water preparation [1]. The aim of contribution is to compare energy balance of heating and domestic hot water system in designed three variants. The analysis of energy performance is done for multi-dwelling house. It is the house with 5 floors with total number of flats 32 (two-room and three-room flats on the 2nd to 5th floors). On the 1st floor there are carports and community spaces for all residents of the multi-dwelling house. The total heating area of the house is 2 185 m^2. There are total 86 residents in the house and the average consumption of DHW is at 40 litres per person and day.

2 SELECTED VARIANTS OF HEATING AND DHW SYSTEM

For energy analysis there were selected 3 variants of heating and DHW system:

1st variant – The heat source is a cascade of 2 gas boilers (heat power 2x80 kW) located in the boiler room on the 1st floor. The gas boilers are used for space heating and domestic hot water preparing in house. There is double-pipe heating system; heat-insulated horizontal pipes are located under ceiling on 1st floor (thermal insulation PE thickness 25.0 mm). The plate radiators with thermostatic head are heat emitters. There is central DHW preparation in storage with volume 1 500 litres (the stand-by heat loss of storage vessel is at 5.1 kWh/24h by hot water temperature 65 °C and ambient temperature 20 °C [2]). The horizontal DHW distribution system is led below ceiling of the 1st floor, single rising pipes including circulation loops are led in vertical shaft of flats (Figure 1). There are used the polypropylene

pipes (PP-R with glass fibre) with thermal insulation from polyethylene (PE) by thickness 20.0 mm for vertical pipes and by thickness by 25.0 mm for horizontal pipes. The circulation loop of distribution system is in operation daily from 4 a.m. till 11 p.m. The temperature of hot water in distribution pipes is considered at 50°C.

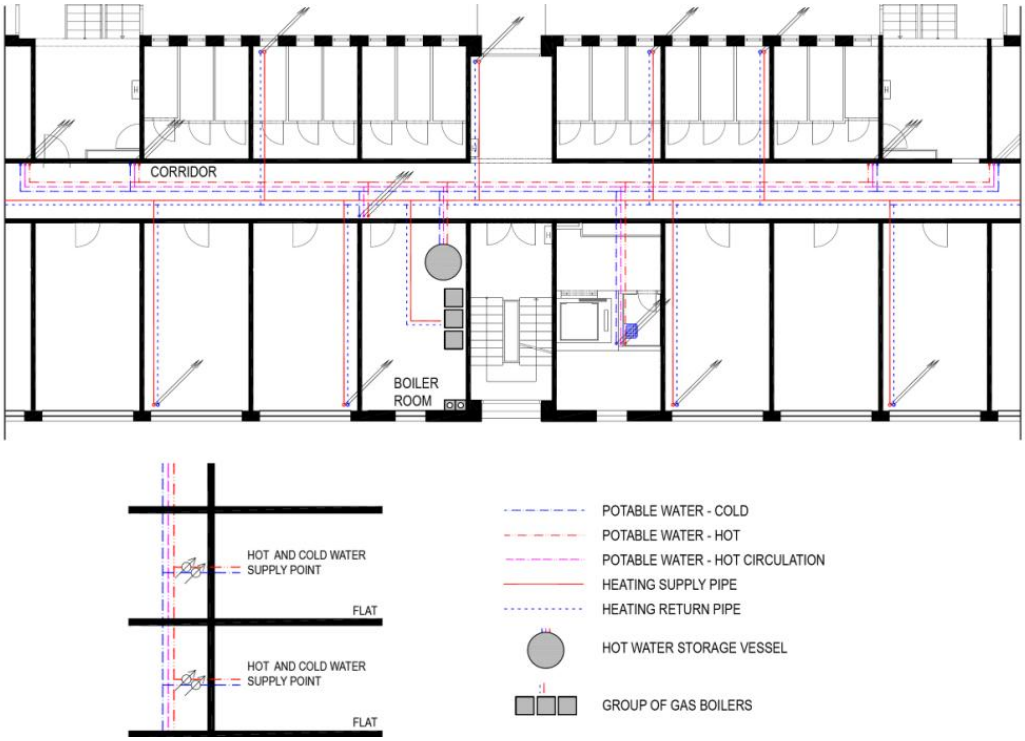


Figure 1. The 1st floor plan of the house (up) and the scheme of vertical pipes (down) – 1st variant

2nd variant – There is installed local gas boiler with integral instantaneous water heater (12 l/min at $\Delta\theta$= 30 K) in each flat of the house. There is no circulation loop because distance between the supply points and the heat source is very short. The heating distribution pipes from boiler to plate radiators are located in floor construction (Figure 2).

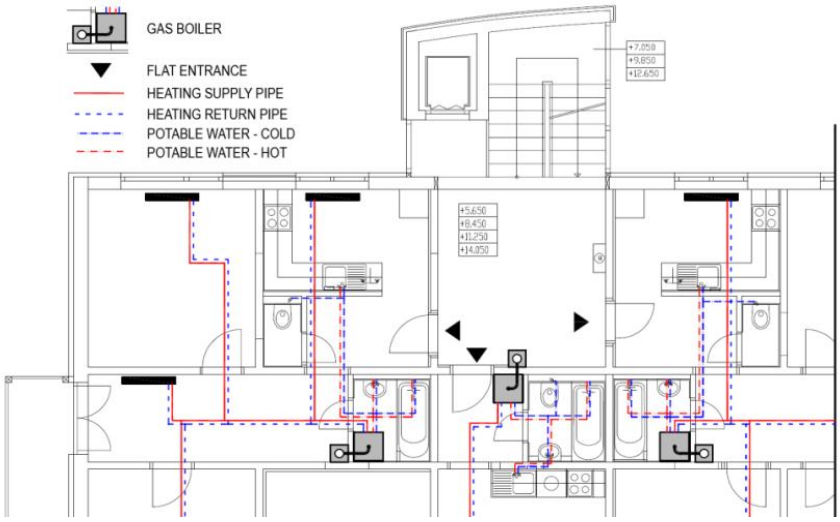


Figure 2. The floor plan of one flat – 2nd variant

3rd variant – There is local space heating and DHW system in each flats of the house by using residential thermal stations (RTS) with plate heat exchanger for DHW system (flow 12 l/min at $\Delta\theta$= 30 K). The RTS are located in internal corridor of the house (Figure 4). The heat source is a cascade of 2 gas boilers (heat power 2x80 kW) located in the boiler room on the 1st floor. The horizontal primary heating distribution system (between heat sources and RTS) is led below ceiling of the 1st floor (Figure 3). The distribution pipes are thermal insulated by insulation from polyethylene by thickness 25.0 mm. The constant temperature of heating medium is 70 °C during the year.

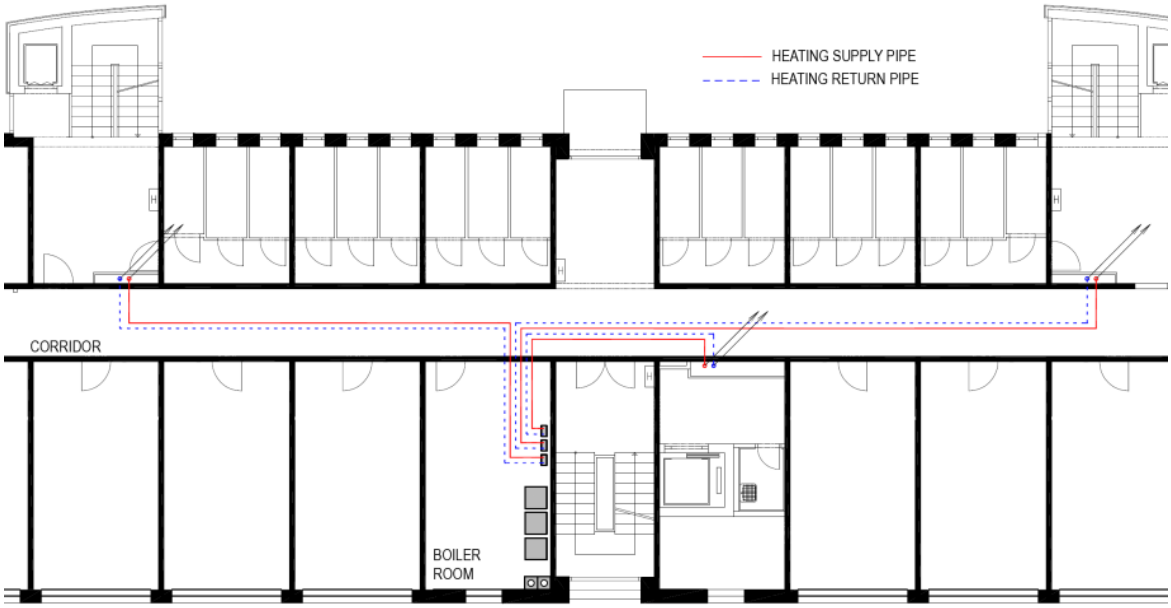


Figure 3. The 1st floor plan of the multi-dwelling house – 3rd variant

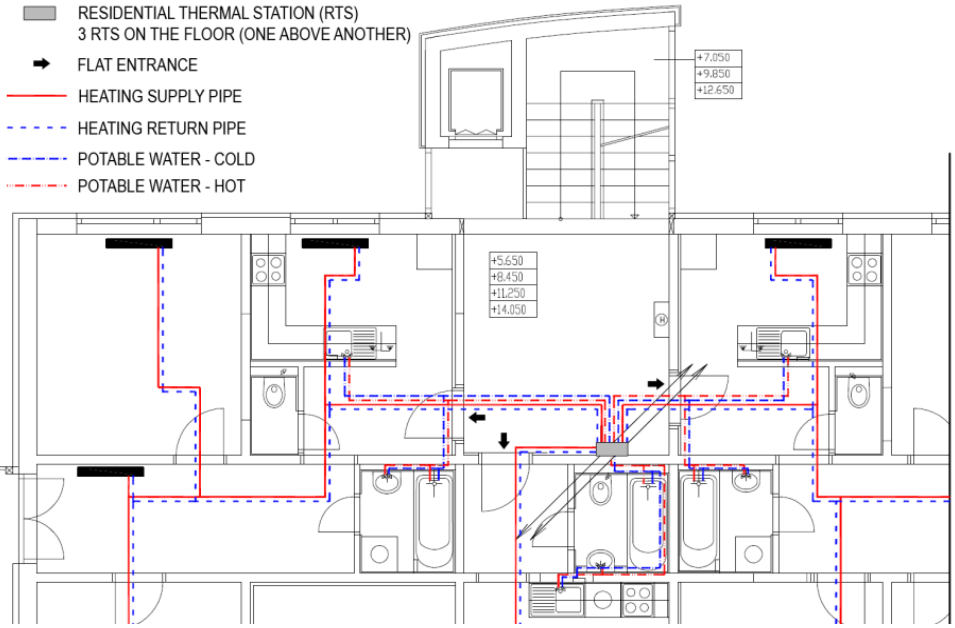


Figure 4. The location of residential thermal stations in the floor plan – 3rd variant

3 ENERGY AND FINANCIAL BALANCE OF THE ENERGY SYSTEMS

In order to analyse the different heating and DHW systems the following items were calculated: energy need for space heating and DHW [3][4], additional heat loss of the heat emission [5], thermal losses from the space heating and DHW distribution system, calculation by [6][7] and thermal losses from the DHW storage vessel, calculation by [8]. The results of energy and financial balance for compared variants of heating and DHW system are shown on the figure below (Figure 5).

Table 1. Energy requirements for all selected variants

	The 1st variant	**The 2nd variant**	**The 3rd variant**
Space heating	138 218 kWh/a	135 073 kWh/a	133 736 kWh/a
Energy need	119 534 kWh/a	119 534 kWh/a	119 534 kWh/a
Emission heat losses	15 539 kWh/a	15 539 kWh/a	15 539 kWh/a
Distribution heat losses	7 172 kWh/a	-	1 763 kWh/a
Recovered energy from DHW system	- 4 027 kWh/a	-	- 3 100 kWh/a
Domestic hot water system	58 817 kWh/a	43 700 kWh/a	57 627 kWh/a
Energy need	43 700 kWh/a	43 700 kWh/a	43 700 kWh/a
Distribution heat losses	13 452 kWh/a	-	13 927 kWh/a
Storage heat losses	1 665 kWh/a	-	-

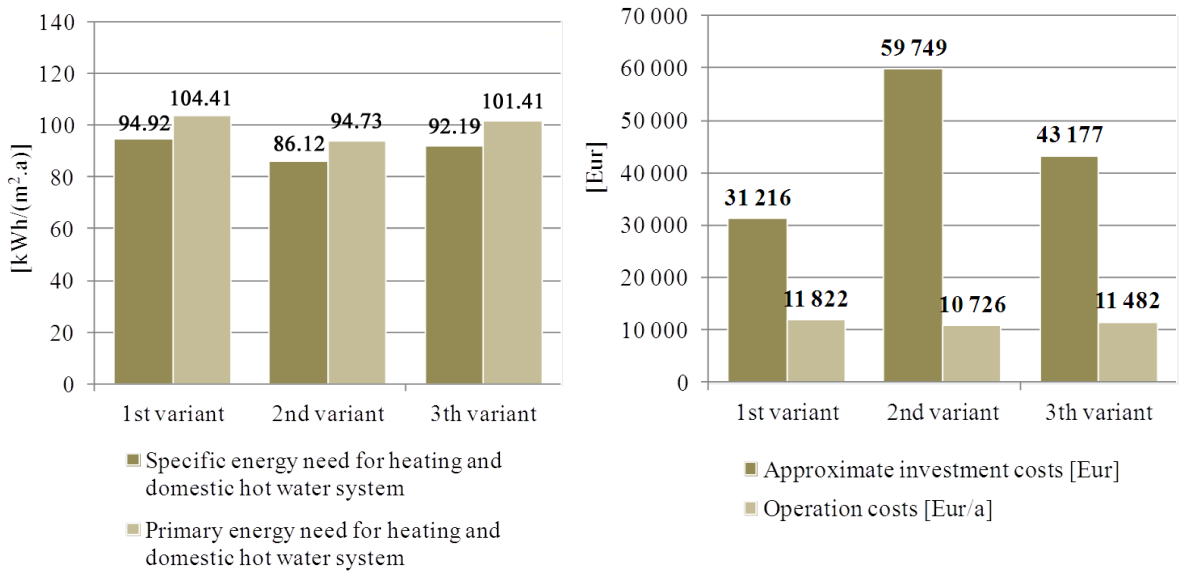


Figure 5. Energy balance (left) and financial balance (right) for selected variants

The graph left shows specific energy need for building operation and so called primary energy. The specific energy need was calculated as share of energy need for heating and DHW system and total floor area (2 185 m^2). There was calculated with energy efficiency of gas boilers at value 95 %. The primary energy is calculated by multiplying the specific energy need and factor of primary energy for natural gas whose value is 1.1 in Slovakia [4]. In term of energy consumption, the 1st variant was evaluated as the least energy effective. It results from complexity of heating and DHW distribution pipes (number and length of pipes). The most energy effective is the 2nd variant with gas boiler in each flat. In this case there isn't

needed the large distribution pipes from central heat source to the user outlets what positive influences the energy balance of both systems. In case of all three variants there are used gas condensing boilers what makes possible to compare all variants correct. In order to calculate operation costs there was used unit price of natural gas at value 0.057 Euro per kWh inclusive VAT. The operation costs are direct proportional to calculated energy need for heating and DHW system. Our aim was not to calculate investment cost for each variant exactly. The presented investment costs are orientation and make provision for investment to main components of heating and DHW system in each variant (Table 2).

Table 2. The main components of heating and domestic hot water system in each variant

The 1st variant	**The 2nd variant**	**The 3rd variant**
2x gas boiler	32 x gas boiler	2x gas boiler
Domestic hot water storage	8x chimney	Components in boiler-room (storage vessel, safety components…)
Components in boiler-room (safety components, circulation pump...)		Chimney
Chimney		32x residential thermal stations

Financial cost to other material and components (pipes, fittings, radiators) are for all three variants about equally. It is reason why they were not adding in investments. In term of financing the most expensive is the 2nd variant where it is needed to install big number gas boilers and chimneys. There was considered the orientation price of standard gas boilers at value 1,300 Euro inclusive VAT. The investments for boiler-room and chimney are for the 1st and the 3rd variant about equally. But in case of the 3rd variant it is needed to install 32 pieces of RTS additionally. The orientation price of used RTS that was considered in financial balance is at value 900 Euro inclusive VAT.

4 CONCLUSIONS

The aim of this contribution was to analyse three selected systems of heating and DHW system in term of system energy performance. For this evaluated house the 2nd variant with decentralised hot water preparation by gas boiler with hot water storage vessel in each flat is the most energy effective. This technical solution requires double high investment costs as investments for standard central heating and DHW system (the 1st variant). Energy performance of the 3rd variant is about equally in comparison with the 1st variant but investment costs are 1.5 times higher. It is caused by installing the RTS for each flat. The aim of financial analyse was to show on financial gap in investments between variants. The gaps are influenced by quality of used materials and components in heating and DHW system.

Acknowledgments

This work was funded by the following project: VEGA 1/0697/17 - "Hygienic water audit platform as transition tool to Legionella free water and HVAC systems in hospitals".

Sources

1. CHOLEVA, T., SIUTA-OLCHA, A., SKWARCZYNSKI, M. A. *Experimental evaluation of three heating systems commonly used in the residential sector.* Energy and Buildings 43, 2011. 2140-2144.

2. STN EN 15 316-4-2 Heating systems in buildings - Method for calculation of system energy requirements and system efficiencies - Heat pump systems. Brussels: CEN, 2007.
3. STN EN ISO 13790 Energy performance of buildings. Calculation of energy use for space heating and cooling. Bratislava: SUTN, 2009.
4. Vyhláška č. 324/2016 Z. z. MDVaRR SR z 30. novembra 2016, ktorou sa mení a dopĺňa vyhláška MDVaRR SR č. 364/2012 Z.z. o energetickej hospodárnosti budov. (only in Slovak language)
5. STN EN 15316-2-1 Heating systems in buildings – Method for calculation of system energy requirements and system efficiencies – Space heating emission systems. Brussels: CEN, 2007
6. STN EN 15316-2-1 Heating systems in buildings – Method for calculation of system energy requirements and system efficiencies – Space heating distribution systems. Brussels: CEN, 2007
7. STN EN 15316-3-2 Heating systems in buildings – Method for calculation of system energy requirements and system efficiencies – Domestic hot water systems, distribution. Brussels: CEN, 2007
8. STN EN 15316-3-3 Heating systems in buildings – Method for calculation of system energy requirements and system efficiencies – Part 3-3: Domestic hot water systems, generation. Brussels: CEN, 2007

Contact

Ing. Martin Kovac, PhD.
Technical University of Kosice
Civil Engineering Faculty
Vysokoskolska 4, Kosice, Slovak Republic
Tel: +421 055 602 4238
email: martin.kovac@tuke.sk

Ing. Katarina Kovacova, PhD.
Technical University of Kosice
Civil Engineering Faculty
Vysokoskolska 4, Kosice, Slovak Republic
Tel: +421 055 602 4238
email: katarina.kovacova.3@tuke.sk

Statistika | Conference Statistics

Počet odborných textů | Number of papers: 166

Počet odborných textů dle sekcí | Number of papers:

Podnikové řízení | Business Management	17
Marketing a obchod | Marketing	11
Ekonomie a podniková ekonomika | Economy and Business Economics	14
Veřejná správa | Public service	8
Finance a účetnictví | Financing and Accounting	11
Psychologie, sociologie a pedagogika | Psychology, Sociology and Pedagogy	53
Filosofie, politologie a dějiny | Philosophy, Politics and History	18
Průmyslové inženýrství | Industrial Engineering	2
Inovace, technologie | Innovation, Technology	6
Informatika a informační technologie | Informatics and Information Technology	10
Přírodní vědy | Natural Sciences	8
Stavebnictví, strojírenství | Engineering, Building Industry	8

MEZINÁRODNÍ MASARYKOVA KONFERENCE
INTERNATIONAL MASARYK CONFERENCE

ISBN 978-80-87952-22-1

vol. VIII., 2017

Příspěvky publikované v tomto sborníku vyjadřují názory a stanoviska nezávislých autorů. | Papers published in this conference proceedings express the viewpoints of their independent authors.

Tato publikace neprošla redakční ani jazykovou úpravou.

9 788087 952221